

## THE PLOUGH



## THE LOOM AND THE ANVIL

J. S. SKINNER, EDITOR.



PHILADELPHIA:

J. S. SKINNER, 79 Walnut Street.

THE TERMS are in advance—\$2 each, where five unite—\$5 for two subscribers, or, for two years; and \$3 for a single one. Sixty-four pages monthly, printed in the best style, and on the best paper. The Work is stereotyped, and back Nos. or Vols. can always be supplied.

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NEW ENGLAND SUBSCRIBERS, except Rhode Island, are requested to forward their subscriptions for the third volume of the *Plough, Loom, and Anvil*, post-paid, either to the office at Philadelphia, or to M. P. Parish, 17 and 19 Cornhill, Boston.

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 Our exchanges will please send their papers addressed to the AGRICULTURAL ADVERTISER, and not to "The Plough, the Loom, and the Anvil."







# The Plough, the Loom, and the Anvil.

VOL. III.

NOVEMBER, 1850.

No. V.

## THE HARMONY OF INTERESTS:

AGRICULTURAL, MANUFACTURING, AND COMMERCIAL.

BY H. C. CAREY.

FEW, we think, can read the following chapter of Mr. Carey's "Harmony of Interests" without agreeing with their author in designating as "Satanic" that school of political economy which teaches the separation of the producer and the consumer, and the impoverishment of both. Throughout all the countries subject to it, the man who raises the food and the wool obtains but little cloth or iron in return for his labour; while he who, at home, spins the wool and weaves the cloth—smelts the ore and rolls the iron—obtains but little food, and has little to spare for clothing, the middle-man being enriched at the expense of both. The poor are thus made poorer, and the rich made richer, and this, we are told, is a necessary consequence of a *law of God*, which provides that population shall increase faster than food, and renders it necessary that men and women should perish by famine and pestilence, while of the whole earth there is not at this moment brought into activity a hundredth, if even a thousandth, part of the food-producing power!

Men are taxed and plundered by the middle-men by whom they are governed, and the only remedy provided for their grievances is emigration. They must either starve or abandon their native lands, leaving behind them the homes of their youth, their parents, sisters, friends, to seek in some new land the subsistence that is denied them at home. The woman is forced to remain behind, and thus it is that the sex superabounds at home, starving on the miserable wages usually accorded to female labour, and driven to vice to make up the deficiency, while the colonies are the scenes of vices that universally prevail when the stronger sex are found in excess. Our readers, familiar with the records of the early settlement of the shores of the Mississippi, or the lands of Texas, can scarcely fail to see that demoralization is a necessary consequence of the premature occupation of large bodies of land, and that if they would promote the cause of morality they could adopt no better means for the accomplishment of that end than in teaching the system of concentration, which enriches the farmer by making a market for his products, and protects the morals of his children by enabling them to obtain *at home*, and under the guardianship of the parent, a market for their labour.

Desiring to interest our female readers, and we flatter ourselves that our political economy is of a character to interest a few, at least, of the softer sex, we invite them to a consideration of the condition of a large portion of their fellow women in "the great grain market of the world," as shown in a quotation we shall now offer them from the *London Morning Chronicle*, to which, with many other similar statements, it is furnished by a correspondent, who

desires to draw attention to the miserable situation to which the people of Great Britain are reduced by the insane desire to maintain the *monopoly of machinery*, by aid of which she has rendered herself "the workshop of the world." Having read it, we would desire them to reflect that our whole system, *called free trade*, tends to *compel* our young men to fly to the West, leaving behind them the young women who, destitute of employment near at home, are compelled to fly to the cities, there to become needle-women, and to end in becoming the victims of prostitution. The remedy for all this is to be found in the adoption of a system of policy that will enable the farmer and the planter to draw to their sides prosperous consumers of their products, enabling them to exchange their potatoes and their turnips, their milk and their veal, and their surplus labor, without being compelled to give for a yard of cloth as much cotton as would make half a dozen yards, and for a ton of iron as much food as would feed the manufacturers of ten or fifteen tons; and when the women of the country shall come to see that in the adoption of that course is to be found the true and only remedy for many of the grievances their sex "is heir to," we feel assured that we shall have their influence to aid us in the dissemination of that sound political economy which teaches that, if the farmer, his wife, or his children, would become rich, intelligent, and free, they must make a market on the land for the products of the land:

"I work at the slop, make trousers—moleskin and cord—any sort of plain work. I work at the same place as the other woman works at, and for the same prices. I earn, like her, taking one week with another, about 3s. 4d., and, taking off the candles, about 3s. every week. I have been married, but my husband's been dead eleven year. I have had two children, but I've buried them. When he died he left me penniless, with a baby to keep. I was an honest woman up to the time of my husband's death. I never did him wrong. I can lay my hand on my heart and say so. But since then the world has drove me about so, and poverty and trouble has forced me to do what I never did before. I do the best I can with what little money I earn, and the rest I am obligated to go to the streets for. That is true, though I says it as shouldn't. I can't get a rag to wear without flying to prostitution for it. My wages will barely find me in food. Indeed, I eat more than I earn, and I am obligated to make up my money in other ways. I know a great many women who are situated in the same way as I am. We pretty well all share one fate in that respect—with the exception of those that's got husbands to keep them. The young and middle-aged all do the same, as far as I know. There's good and bad in all; but with the most of 'em I'm sure they're drove to it—yes, that they are. I have frequently heard them regret that they are forced to go to the streets to make out their living."

"The story which follows is perhaps one of the most tragic and touching romances ever read. I must confess, that to myself the mental and bodily agony of the poor Magdalene who related it, was quite overpowering. She was a tall, fine-grown girl, with remarkably regular features. She told her tale with her face hidden in her hands, and sobbing so loud that it was with difficulty I could catch her words. As she held her hands before her eyes, I could see the tears oozing between her fingers. Indeed, I never remember to have witnessed such intense grief. Her statement was of so startling a nature, that I felt it due to the public to inquire into the character of the girl. Though it was late at night, and the gentleman who had brought the case to me assured me that he himself was able to corroborate almost every word of the girl's story, still I felt that I should not be doing my duty to the office that had been intrusted to me, if I allowed so pathetic and romantic a statement to go forth without using every means to test the truth of what I had heard. Accordingly, being informed that the girl was in service, I made the best of my way, not only to her present master, but also to the one she had left but a few months previous. The gentleman who had brought her to me, willingly accompanied me thither. One of the parties lived at the east end of London, the other in the extreme suburbs of London. The result was well worth the journey. Both persons spoke in the highest terms of the girl's honesty, sobriety, and industry, and of her virtue in particular.

"With this preamble let me proceed to tell her story in her own touching words:

"I used to work at slop work—at the shirt work—the fine full-fronted white

shirts; I got 2½d. each for 'em. There were six button-holes, four rows of stitching in the front, and the collars and wrist-bands stitched as well. By working from five o'clock in the morning till midnight each night, I might be able to do seven in the week. These would bring me in 17½d. for my whole week's labour. Out of this the cotton must be taken, and that came to 2d. every week, and so left me 15½d. to pay rent and living and buy candles with. I was single, and received some little help from my friends; still it was impossible for me to live. *I was forced to go out of a night to make out my living. I had a child, and it used to cry for food; so, as I could not get a living for him myself by my needle, I went into the streets, and made out a living that way.* Sometimes there was no work for me, and then I was forced to depend entirely upon the streets for my food. *On my soul, I went to the streets solely to get a living for myself and child.* If I had been able to get it otherwise, I would not have done so. I am the daughter of a minister of the gospel. *My father was an Independent preacher, and I pledge my word, solemnly and sacredly, that it was the low price paid for my labour that drove me to prostitution.* I often struggled against it, and many times have I taken my child into the streets to beg, rather than I would bring shame upon myself and it any longer. I have made pincushions and fancy articles—such as I could manage to scrape together—and taken them to the streets to sell, so that I might get an honest living, but I couldn't. Sometimes I should be out all night in the rain, and sell nothing at all, me and my child together; and when we didn't get any thing that way, we used to sit in a shed, for I was too fatigued with my baby to stand, and I was so poor I couldn't have even a night's lodging upon credit. One night in the depth of winter his legs froze to my side. We sat down on the step of a door. I was trying to make my way to the work-house, but was so weak I couldn't get on any further. The snow was over my shoes. It had been snowing all day, and me and my boy out in it. We hadn't tasted any food since the morning before, and that I got in another person's name. I was driven by positive starvation to say that they sent me, when they did no such thing. All this time I was struggling to give up prostitution. I had many offers, but I refused them all. I had sworn to myself that I would keep from that mode of life for my boy's sake. A lady saw me sitting on the door-steps, and took me into her house, and rubbed my child's legs with brandy. She gave us some food, both my child and me, but I was so far gone I couldn't eat. I got to the work-house that night. I told them we were starving, but they refused to admit us without an order; so I *went back to prostitution again for another month.* I then made from 3s. to 4s. a week, and from that time I gave up prostitution. For the sake of my child I should not like my name to be known; but for the sake of other young girls, I can and will solemnly state, that it was the smallness of the price *I got for my labour that drove me to prostitution as a means of living. In my heart I hated it; my whole nature rebelled at it, and nobody but God knows how I struggled to give it up.* I was only able to do so by getting work at something that was better paid. Had I remained at shirt-making, I must have been a prostitute to this day. I have taken my gown off my back and pledged it, and gone in my petticoat—I had but one—rather than take to the streets again: but it was all in vain."

Is it to be believed, that a rational people will be long content to endure a tariff policy which looks to compelling the labour of this country to go down to, ay, and even below, the level of nations thus starved and demoralized, or else, to buy of them our cloth and iron?—restricting our population to the use of the plough, with which, having no diversity of labour, and no customers at hand, they must exhaust both their lands and themselves—being obliged to scatter, thereby *paralyzing* their industry, instead of drawing together and *combining* their powers?—Is it possible that even party spirit, or any spirit but the spirit of infatuation and ignorance, can long blind this nation to the effect of sending abroad for that which she should manufacture at home, making customers on the spot, to the farmer and the planter, of all concerned in working up our own materials?

Can the latter profit by closing our own mills, filled with well-clothed females, good customers for cotton-cloth, and employing in their stead miserable women, who "*can't get a rag to wear without flying to prostitution for it?*"

[Ed. P. L. & A.]



## CHAPTER EIGHTEENTH.

## HOW PROTECTION AFFECTS THE FRIENDS OF PEACE.

THE more spades and ploughs employed, the larger is the return to labour. The more perfectly peace is maintained, the greater is the number of persons who may employ themselves with spades and ploughs, the more rapid must be the increase of production, and the larger must be the reward of the labourer and the capitalist.

The more swords and muskets employed, the smaller must be the return to labour. The more wars are made, the greater must be the number of persons employing swords and muskets, the slower must be the increase of production, and the smaller must be the reward of the labourer and the capitalist.

Protection is said to be a "war upon labour and capital." If it be so, it must tend to promote war. We are urged to adopt measures for maintaining the *monopoly system* of England, and are assured that, by doing so, we shall contribute to the establishment of peace. To prove that such would be the effect, it would be necessary to show that the colonial system had heretofore tended to the accomplishment of that great end.

If, however, we examine what has been the cause of most of the wars of the last hundred and fifty years, we shall find that it has been the desire for the possession of colonies whose people could be made "customers," and thus taxed for the support of the country that ruled over them. France had Canada, and she desired the country west of the Mississippi; she had islands in the West Indies, and she wanted more. England had some and wanted more. France and England were both in India, and, to settle the question which should tax the whole, that country was desolated by the march of contending armies during a long series of years. France had colonies to lose, and hence the war of 1793. France wanted colonies in the Mediterranean, and hence the rupture of the peace of Amiens, and the series of wars that closed with Waterloo. Since that time we have had a succession of wars in India for the extension of British power over Ceylon, Siam, Afghanistan, Scinde, and the Punjaub. The chief object of the war with China was that of compelling her to open her ports to foreign commerce, and it was accounted a righteous enterprise thus to compel the poor Chinese to open their eyes to the blessings of free trade. At the Cape, the war with the Caffres has cost millions. France, not to be outdone, seized on Tahiti, and deposed its poor queen; and at this moment makes war on the poor Sandwich Islanders, because they will not permit her to do with brandy as England in China did with opium. One portion of the English nation sells powder to the people of Africa, to enable them to carry on wars in which they make prisoners, who are sold as slaves, while another portion watches the coast to see that the slaves shall not be transferred to Cuba or Brazil. The anxiety for colonies has caused the waste of hundreds of thousands of lives, and hundreds of millions on the worthless Algeria. Thus everywhere it is the same; everywhere the anxiety for trade is seen stimulating nations to measures tending to the impoverishment and destruction of their fellow-men.

The power to make war depends upon the high or low valuation of man. Russia makes war readily, because men are cheap. France supports large armies at small cost. The East India Company's army consists of many hundred thousand men. Men in India are cheap. Belgium supports but a small army, because men are more valuable. England is weighed down by her fleets and armies, because wages are higher than on the continent, and she is therefore compelled to depend on voluntary enlistment. Could the price of men be raised, she would be compelled to dispense with fleets and



armies, and the necessity for colonies would cease to exist. Throughout the world, armies have been large where men were held of small account, and throughout they have tended to become less valuable as armies became more numerous.

The cause of war is to be found in the diminished or diminishing productiveness of labour, as our own experience shows. The increasing difficulty of obtaining the means of support, from 1835 to 1842, produced the dispersion of men that led to the war in Florida, the occupation of Texas and Oregon, the difficulty with Great Britain, the war with Mexico, and the occupation of California; and this latter is now leading us into discussions with Great Britain about the rights of the Mosquito king, which, but for the dispersion to California, would interest us little more than would those of the King of Bantam. The colonial system is with us, as with all, the avenue to war, because it tends to diminish the value of labour and land.

When we look to the internal condition of those nations that, from an anxiety for "ships, colonies, and commerce," have been always engaged in wars, we find it a scene of universal discord. Louis Philippe maintained fleets and armies, engaged at one time in the subjugation of Algeria, and at others in the seizure of Tahiti, and in similar enterprises elsewhere. The unproductive class increased in numbers, and the burden to be borne by the productive class increased in weight until the explosion of 1848, followed by barricades of towns, and by a series of disturbances producing a necessity for increasing still further the number of unproductive consumers, men carrying muskets, required to secure the maintenance of internal peace. England maintains large fleets and armies for the protection of commerce and colonies, and her whole empire is "a scene of rude commotion." At home, we see her chartists attempting revolution; in Ireland, monster meetings and efforts at separation, followed by appeals to arms; in Canada, efforts at revolution, followed by the present determination to effect peaceable separation; in the West Indies, universal discord among the employers and the employed; in India, perpetual difficulties, and everywhere a necessity for maintaining large armies for the purpose of maintaining internal peace, or, in other words, for preventing those who have property from being plundered by those who have it not, and enabling those who are strong to tax those who are weak.

With the gradual diminution in the productive power of the people of England, we see an increase of discord between the employers and the employed; strikes becoming more numerous, and accompanied by more serious results, the destruction of buildings and machinery being added to the injury resulting from long suspensions of labour. In Scotland, the population of whole districts is expelled to make way for sheep, while other districts present to view outrages similar to those exhibited in the lands further South. In Ireland, we see a scene of almost universal war, the land-holder in one place expelling his tenants and destroying their houses, while in thousands of others tenants are seen carrying off and secreting their crops, to avoid the payment of rent.

If we look at home, we see similar events resulting from every attempt to throw down the barrier of protection and assimilate our system to that which has produced the ruin of the British colonies. At no period of our history has there prevailed such universal discord among employers and employed as during the last few years of the Compromise act. The productiveness of labour was, as we have seen, gradually diminishing, and the employers were unable to pay to the employed such wages as would enable them to obtain the same amount of conveniences and comforts as they had before enjoyed. The year that has now closed has been signalized by the same state of things

throughout the coal region, as labour became less productive. At one time we have had turn-outs among coal operators, and at another among miners and labourers, and the result has been that the year has been one of almost total loss.

If we compare with this the period that elapsed between 1844 and 1847, we see in the latter a steady increase in the productive power, attended by an increasing tendency to harmony among employers and employed, the natural result of improvement of condition.

The exhaustion resulting from the maintenance of the colonial system thus produces a tendency to turbulence and radicalism that compels the maintenance of armies, followed by further exhaustion, and all the injurious results are borne by labour and land. Consumption cannot exceed production, and whatever decreases the proportion which hands to produce bear to mouths to be fed and backs to be clothed, diminishes the share of food and clothing that falls to each. England now raises almost seventy millions of taxes, very many of which are required for the payment of those employed in the work of collecting the remaining millions that are paid into the treasury. To these millions raised by the State must now be added eight millions for the support of one-ninth of the population of England who are paupers, and many more for the support of the paupers of Ireland. Here is a burden of above four hundred millions of dollars, the whole weight of which is to be borne by the labour and land of England and of the world, and ultimately by her land alone. The people can fly, but the land cannot. The power to pay rent depends upon the power to make the land produce, and, as that increases with increase of numbers, and improvement in the physical, moral, and intellectual condition of the labourer, it diminishes with diminution of numbers and deterioration of condition. In the three years ending with 1845, the consumption of spirits, domestic and colonial, amounted to . . . . . 23,422,295 galls. In the three years ending in 1848, it was . . . . . 25,326,861\* " showing a tendency to inebriation increasing with the diminishing power to obtain in return for labour a suitable reward.

Demoralization produces pauperism, and pauperism increases demoralization, and the inebriate paupers must be supported out of the products of the land. The surplus food of Russia has diminished cultivation in Ireland, and has, of course, diminished production. England is now overrun with Irish labourers and paupers, and what has happened in Ireland must follow in England. More corn will continue to be imported, and more cotton goods will be exported; but the products of the land, out of which rent and taxes are to be paid, will diminish, and, while the mouths to be fed will increase in number, the food with which they are to be fed will continue to diminish in quantity. The corn-laws constituted the barrier of the land-holders of England against the effects of the system by which England was deteriorating the value of labour and land throughout the world. Their abolition tends to bring it daily more and more upon themselves, and the only remedy is to be found in the abolition of the colonial system and the suppression of the fleets and armies which its existence renders necessary. The diminution of unproductive consumers will be attended by an increase of productive ones, and the exports of England will then again represent home-grown food, to be returned in sugar, tea, coffee, and cotton, and with every step in that direction the necessity for taxes will diminish, and the power to pay them will increase.

If we look at home, we see a tendency to increase in the necessity for taxa-

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\* This fact is adduced by the *Edinburgh Review*, July, 1849, as one of the evidences of the advantage resulting from free trade.

tion with every step towards subjection to the colonial system, and diminished tendency thereto as we move in the opposite direction. The expenses of the government under the administration of Mr. Monroe averaged thirteen millions. Those of the administration of Mr. Adams averaged little over twelve millions. During the existence of the tariff of 1828, and in the early period of the Compromise, we find the expenditure maintained at thirteen millions, but with the gradual dispersion of population we arrive at the Florida war, and an expenditure of thirty, thirty-seven, and thirty-three millions in three successive years, and afterwards falling gradually until we find it at twenty millions in the period of 1843 to 1844. With the adoption of free-trade doctrines, we find an increasing tendency to war, and the expenditure rising to sixty millions. Looking at all these facts, it is difficult to arrive at any other conclusion than that protection tends to increase the demand for spades and ploughs, and the reward of labour, and to diminish that demand for swords and muskets which leads to the destruction of both the labourer and the plough. The friend of peace is therefore directly interested in the destruction of the English monopoly of machinery.

If protection be a war upon labour and capital, we should find it attended with diminished production and increased expenditures. If, on the contrary, it be, as its name imports, protection to both labourer and capitalist, tending to augment the value of the labourer, then it should be attended with increased production and diminished expenditure. We have now before us the fact, that, while the government, from 1824 to 1833, was administered at about one dollar per head, the cost of administration rose in the free-trade period to more than two dollars, to fall again to one in the period of protection, and to rise to almost three in the present free-trade one.\* Protection looks homeward. Free trade, under existing circumstances, looks abroad, and needs fleets and armies, with hosts of officers, great custom-houses and warehouses, branch mints in California and New York, ministers plenipotentiary and chargés without number abroad, and hosts of officers at home, to be supported out of the proceeds of labour and land. The one looks to cheap and good government; the other to a splendid one, profitable to the governors, but fatal to the governed.

We have seen that under protection the value of labour at home has increased, and that therewith there has been an increase in the power of consuming foreign commodities, such as we do not ourselves produce. We have also seen that while it tends to increase the importation of people from abroad, it tends likewise to facilitate the transmission to Europe of our bulky commodities, by enabling us to send them at almost nominal freights, and that thus, while it raises the value of labour throughout the world by diminishing the number of persons seeking employment, it also raises it by enabling those who remain abroad to obtain sugar, cotton, coffee, and the other productions of the West, at diminished cost. The way to promote harmony among nations, and in the bosom of nations, is to increase the value of man, and such has been, and must continue to be the result of protection. That object once accomplished, all necessity for custom-houses, whether for protection or for revenue, will cease.

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The man who contributes to the support of war makes war, and if he does it voluntarily he is accountable for the results thereof in the deterioration and

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\* Independently of the amount of money paid for the expenses of the Mexican war and the purchase of California, ninety thousand land warrants have been issued to soldiers who served in the war, giving to them as bounty 13,800,000 acres. Estimating this land at the government price, \$1 25 an acre, we have an aggregate of \$17,230,000.



destruction of his fellow-men. Of all the people of the world, there are none who have contributed so largely as ourselves to the maintenance of the fleets and armies by which Ireland has been ruined, and war has been carried throughout Europe and Asia. So far as we have done this voluntarily, we are as much responsible for the destruction of life and property in China, Scinde, Afghanistan, and the Punjaub, as the men by whose command these things were done.

We have seen that England produces little to export, yet is she enabled to consume much. The producer obtains little for his cotton, yet the labourer obtains little clothing for the time employed in converting the cotton into cloth. The sugar-planter obtains little iron for his sugar, yet the miner has little sugar for his labour. The tobacco-grower has little cloth for his product, but the spinner can consume little tobacco. The reason for all this is to be found in the fact that between the consumer and the producer stands a host of exchangers, the greatest of which is that which collects taxes to be paid out for the support of fleets and armies. Every pound of cotton that travels on an English railway, contributes its proportion to the £108,000 of taxes paid by the single London and North-western railway, the £68,000 paid by the Great Western,\* or some other of the immense sums paid by other railways. Every pound of tobacco pays 3s. = 72 cents, towards the maintenance of the fleets and armies of Great Britain, in addition to its share of the taxes on warehouses, bills of exchange, promissory notes, and of the thousand other taxes paid by the various persons who stand between the producer and the consumer. These men produce nothing themselves, and their taxes must be paid for them by the land and labour that do produce—whether it be foreign or domestic.

England is now the great war-making power of the world. It is by means of the monopoly of machinery for the production of iron, and for the conversion of cotton into cloth, that she is enabled to tax the world for the maintenance of her fleets and armies,† for the prosecution of those wars. To destroy her power to make war would be to bring about peace. Protection tends to limit her power to tax the farmers and planters of the world, and thus to limit her power to raise revenue for the payment of soldiers and sailors, while it tends to raise the value of man, and thus make soldiers and sailors more costly. In both ways it tends to diminish the power to maintain fleets and armies, and to promote the maintenance of peace. Every friend of peace is therefore bound to use his efforts for the destruction of *the monopoly system*.

The London *Times* recently published, with approbation, a letter from the East Indies—from a British officer engaged in the battle of Goodjerat, from which the following is an extract. It is deserving the careful consideration of every man who has heretofore aided in the maintenance of the system:—

"The enemy were in the sands trying to escape, and our men *knocking them over like dogs*. . . Some of our men screamed out, 'They are off!' Fordyce's troops went off at a gallop, our men giving them three cheers—such cheers—it was a *perfect scream of delight and eagerness!* and you may be sure I assisted and yelled till I was hoarse! . . . Every wounded Sikh was either shot or bayoneted (!!) . . . I rushed up with a few of the grenadiers, and found four men re-loading their pieces; three were bayoneted, and I was *hacking away at the head of the fourth*, when Compton, of the grenadiers, shot him. The

\* North British Review, August, 1849.

† Sir Charles Napier has addressed a letter to the public, which fills five closely printed columns of the *Times*, upon the subject of the navy and its expenses. The sum and substance of what he says seems to be, "that we have spent about ninety millions sterling during the last twenty-eight years in rebuilding our navy twice over, and now we cannot even find the fragments." Such are the results of the system of "ships, colonies, and commerce."



last shot was fired at an unfortunate Goorer in the camp, who was seated quietly reading their Grunth! . . . We waited at this place about two hours; and I can assure you they were about the *jolliest two hours* I ever passed. I never enjoyed a bottle of beer so much in all my life!"

## CHAPTER NINETEENTH.

### HOW PROTECTION AFFECTS THE EXCHANGER.

THE exchanger stands between the producer and the consumer. He himself produces nothing, although consuming much, in exchange for which he gives only services. He buys a bale of cloth and divides it among the consumers, giving a piece to one and a yard to another, but he makes no change in the quantity or quality of the commodities that pass through his hands. The bale of cloth would clothe as many men, and the cargo of flour would feed as many, without his services, as with them. Nevertheless, the exchanger takes rank before the producer. The merchants of London, of New York, and of Boston, have more influence over the action of government, and over public opinion, than twenty, fifty, or even one hundred times the number of men whose every hour is given to increasing the quantity and improving the quality of things necessary to the use of man.

The reason that such is the case is that the present system of trade tends to increase the *necessities* of the producers for going to distant markets, and to diminish their *power* so to do. When the producer of iron takes his place by the side of his producer of food, the latter exchanges his potatoes, his cabbages, his veal, his milk, and his butter, directly with the former, and obtains his iron at little cost of labour. He is thereby enabled to improve his wagon and his roads, and to go to market cheaply, thus increasing his powers while diminishing his necessities. The more distant the consumer and the producer, the greater must be the quantity of machinery of exchange, and the poorer must be its quality, and every such change in regard to either tends to the impoverishment of the farmer and planter.

Such being the case, it might be supposed that here was a case of discord. The exchangers would suffer by the adoption of measures tending to bring the consumers to take their places by each other. Directly the reverse, however, is the fact. The quantity to be exchanged depends on the extent of the *surplus* that is produced, and that increases with prodigious rapidity as the power of production is increased. The man who produces no more food than is absolutely necessary for his own consumption, has nothing to exchange for cloth or iron. Once fed, he may exchange the whole surplus, whatever it be, and therefore it is that the amount of exchanges increases with such wonderful rapidity when production increases, as was the case from 1843 to 1847.

The larger the return to labour applied to production, the less must be the necessity for seeking employment in the work of exchange, and the less will be the competition in trade. Our cities are filled with young men from the country who would have remained at home among parents and friends, had the cotton or woollens factory, the furnace or the rolling-mill, been there to give them employment; but as it was not there, they have been compelled to add themselves to the already almost infinite number of clerks, hoping, and vainly hoping, to obtain stores or shops for themselves. By bringing the consumer to the side of the producer, such young men would, in future, remain at home to swell the number of producers, and to increase the amount of production, enabling each exchanger to perform a larger amount of business, and to grow rich with the same rate of commission that now keeps him poor.

It is asserted that of all the persons engaged in trade, in our cities, four-fifths fail. The cause is to be found in the fact that so many are forced into trade, for want of being enabled to apply themselves to production, and that when there they are exposed to the effects of the enormous changes which result from the existence of the English monopoly system. Iron sells at one time at ten pounds, and soon after at five. The man of small capital, who has a stock on hand, is ruined. Cottons and woollens change in like manner. At one moment England desires to sell iron and cloth in exchange for certificates of debt, and money is said to be plenty. At the next, she asks to be paid, and money becomes scarce. The little capitalist is ruined by the change. The consequence is, that our cities are filled with men who have adventured in trade, and failed.

In England, these disastrous effects are far more widely felt. The country is filled with young men anxious to be employed in any department of trade, for in the work of production can be found no demand for time or mind, unless accompanied with large capital. The consequence is a perpetual strife for obtaining even the means of subsistence, among shopmen, clerks, and journeymen,\* while the unceasing changes carry ruin, at brief intervals, among the employers. The last three years have seen to disappear a large number of the principal trading firms in the kingdom, and the exhibits they have made of their affairs afford proof conclusive of the ruinous character of the system. In Liverpool, at one time, there were 7000 houses and stores unoccupied. What had become of those who had been their occupants?

The tendency of the whole system is to produce a *necessity* for trade, and to diminish the *power* to maintain trade. "Commerce," there, "is king," and like other kings, he is exhausting his own subjects. Having plundered and ruined India, the West Indies, Ireland, Portugal, and all other countries subject to his control, he is now doing the same at home. With every step he is diminishing the power of applying labour to production, and increasing the necessity for looking to trade as the only means of employing time, talent, or capital, with constantly decreasing return to all; and hence it is that so large a portion of the people of the United Kingdom desire to escape to other lands, where Commerce, finding in agriculture and manufactures his equals, cannot be king. In his proper place he is most useful, but as master he has always proved a tyrant worse than any recorded even in the annals of Rome. The object of the colonial system was that of making him master, and its effects are now felt at home as well as abroad. The object of protection is to put an end to his tyranny, and to bring him back to his true condition; and among the whole people there are none whose interests are more to be promoted by the accomplishment of that object than those who are now engaged in commerce, because with every step it will increase the amount of exchanges to be performed, without a corresponding increase in the number of exchangers.

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\* "Fourteen hundred tailors are now in London totally unemployed, and hundreds daily applying for relief to the houses of call; the funds are, however, exhausted. Nine hundred shoemakers out of work have their names on the books, and seventeen hundred are working for half wages. The curriers and leather-dressers are in the same situation. There were never known so many working jewellers out of employ, and meetings of the trade are now holding to petition parliament for protection against the competition of foreign labour."—*Morning Post*.

## CHAPTER TWENTIETH.

## HOW PROTECTION AFFECTS WOMAN.

WITH every increase in the value of labour and land, the condition of woman is improved. With every improvement in her condition, she has more leisure to devote to the care of her children, and to fitting them worthily to fill their station in society, giving value to labour and land. If protection be "a war upon labour and capital," it must tend to diminution in the value of labour and land, and to deterioration in the condition of the weaker sex. How far that is the case we may now examine.

Throughout a large portion of this country, the time of women is almost entirely valueless. They would gladly work if they could, but there is no employment but that on the farm, for which they are not fitted. Place in every county of the Union a mill, and there will thus be produced a demand for that now surplus labour, and the workers in the mill will obtain more and better food and clothing, and they will be able to obtain more and better clothing, and education, and books by which to improve their minds, and fit them to fill the station of mothers, to which they will then be called. For want of local employment the young men are forced to seek the cities, or to fly to the West, and thousands and tens of thousands of women remain at home unmarried, while other thousands also seek the cities in search of employment, and terminate their career as prostitutes, because unable to compete with the "cheap" labour of the unhappy subjects of the following article, which I take from one of the newspapers of the day:—

"The distressed needle-women of London have been made the object of a commission of inquiry instituted by the Morning Chronicle. Three gentlemen well known in literature have examined the state of this unfortunate class, and the result is, that there lives in London a body of about 33,000 women permanently at the starvation point; working at the wages of a few pence a day.

"The greater portion of these poor creatures, living, as they do, far beyond the social state, resort to prostitution, as a means of eking out their miserable subsistence; whenever the pressure threatens their extinction, then they turn into the street, and pauperism runs into inevitable vice. Since the disclosures of the Morning Chronicle, many humane persons have forwarded considerable sums of money to the office of that journal for distribution among the most necessitous objects; and Mr. Sidney Herbert has come forward to found a society for promoting their emigration. There is something like half a million of women in excess of men in Great Britain; there is a corresponding excess of males in the British Australian Colonies. The society above mentioned aims to bring these marriageable parties in contact; and it is hoped, that when once it is in operation, government will assist it with funds. It costs some £15 to transport a passenger to Australia. Now, if private benevolence raises a sum of £30,000, this will only relieve 2000 of the sufferers: a mere fraction, whose absence would not be sensible in the metropolis. It would require ten times that amount to lade out the misery to the proper extent, and also to satisfy the wants of the colonists."

"Commerce is king," and such are his female subjects. To the same level must fall all those who are under the *necessity* of competing with them, and such are even now the results of the approach to the system that looks to the maintenance of the English monopoly as being freedom of trade. The compensation for female labour is miserably small, even now, but it must fall far lower when we shall be called upon to settle the account for the modicum of iron, wool, silk, and earthenware that we receive in exchange for all our cotton, tobacco, rice, flour, pork, cheese, butter, and evidences of debt.

"So God created man in his own image, in the image of God created he him; male and female created he them. And God blessed them and said



unto them, Be fruitful and multiply, and replenish the earth and subdue it."

Such was the first command of God to man on earth, and, as he does or does not comply with it, he is found a moral or immoral being. If the association of man with his fellow-man tend to the elevation of character and to the promotion of civilization, how infinitely more is such the result of that intimate association resulting from obedience to the command, "Be fruitful and multiply." The relation of husband and wife, and that of parent and child, are both essential to the development of all that is good and kind, gentle and thoughtful. The desire to provide for the wife and the child prompts the husband to labour, for the purpose of acquiring the means of present support, and to economy as a means of preparation for the future. The desire to provide for the husband and the children prompts the wife to exertions that would otherwise have been deemed impossible, and to sacrifices that none but a wife or a mother could make.

The modern school of political economy says, "Be not fruitful; do not multiply. Population tends to increase faster than food." It prescribes disobedience to the earliest of God's commands. Obedience thereto, in those who are poor, is denounced as improvidence; and to those who are so improvident as to marry, "with no provision for the future, no sure and ample support even for the present," it is thought "important to pronounce distinctly that, on no principle of social right or justice, have they any claim to share the earnings or the savings of their more prudent, more energetic, more self-denying fellow-citizens."\* To have a wife for whom to labour, and with whom to enjoy the fruits of labour, is a luxury, abstinence from which is placed high among the virtues. To have children to develop all the kindly and provident feelings of the parents, is a crime worthy of punishment. Charity is denounced as tending to promote the growth of population. To rent land at less than the full price, is an error, because it tends to increase the number to be fed. To clear the land of thousands whose ancestors have lived and died on the spot, is "improvement." Cottage allotments are but places for breeding paupers.

Southey denounced the Byronian school of poetry as "satanic," and so may we fairly do with the school of political economy that has grown out of the colonial system, and the desire to make of England "the work-shop of the world." It teaches every thing but Christianity, and that any feelings of kindness towards those who are so unfortunate as to be poor should still remain in England, is due to the fact that those who teach it have not in their doctrine sufficient faith to practise what they preach.

The direct tendency of the existing monopoly of machinery which it is the object of *free trade* to maintain, is towards barbarism. It drives hundreds of thousands of Englishmen to abandon mothers, wives, and sisters, and barbarize themselves in the wilderness, while of those who remain behind a large portion are too poor to marry, the consequences of which are seen in the immense extent of prostitution and the perpetual occurrence of child murder. In this country it is the same. Of the almost hundreds of thousands of men who have fled to the wilds of Oregon or California, a vast portion would have remained at home with mothers and sisters had the consumer been allowed to take his place by the side of the producer, as he would long since have done, but for the existence of this most unnatural system.

Among the women of the world, there is a perfect harmony of interests. It is to the interest of all that the condition of all should be elevated, and such must be the result of an increase in the value of labour. The object

\* Edinburgh Review, October, 1849.



of protection is that of raising throughout the world the value of man, and thus improving the condition of woman. Every woman, therefore, who has at heart the elevation of her fellow-women throughout the world, should advocate the cause of protection.

## CHAPTER TWENTY-FIRST.

## HOW PROTECTION AFFECTS MORALS.

THE moral man is sensible of the duties he owes to his wife, his children, society, and himself. He frequents neither taverns nor gaming-houses. His place is home.

The more perfect the morality the more productive will be the labour of a community, and the greater will be the power of its members to improve their moral and intellectual condition. If protection be "a war upon labour and capital," it must tend to the deterioration of morality and the diminution of the reward of labour.

The more equal the division of a community between the sexes, the greater will be the power to contract matrimony, and the higher will be morality. The monopoly system tends to expel the men and produce inequality in the number of the sexes, and thus to diminish the power to contract matrimony, thereby producing a tendency to immorality. The object of protection is to enable men to remain at home, and thus bring about equality, which cannot exist where the tendency to dispersion exists.

The more men can remain at home, the better they can perform their duties to their children. The monopoly system tends to compel them to perform their exchanges in distant markets and to separate themselves from wives and children. The object of protection is to bring the consumer to take his place by the side of the producer, and enable them to effect their exchanges at home.

The more directly the consumer exchanges with the producer, the less will be the disposition and the power to commit frauds. The farmer of Illinois has no object in adulterating his corn, because corn is cheap; but the miller of England mixes beans with the corn, because corn is dear. The planter of Alabama would gain nothing by substituting flour for cotton, because the latter is cheap; but the manufacturer of England does so because cotton is dear. The coffee planter delivers coffee. The English shopkeeper substitutes chicory for coffee, because the latter is dear. The inducement to fraud in these cases results from the distance between the producer and the consumer, which it is the object of protection to diminish. The shoemaker makes good shoes for his customers; but he makes indifferent ones for the traders who deal with persons that are distant. The gunsmith furnishes to his neighbours guns that will stand the proof; but when he makes others to be sold in Africa, he cares little if they burst at the first fire. The necessity for maintaining the monopoly of machinery now enjoyed by England leads to frauds and forgeries of every description, with a view to displace the foreign produce and deceive the foreign producer.\* The power to commit

\* As a specimen of this, I take the following from one of the journals of the day:

"We are surprised to see gingham in market, sent out from England by the house of A. & S. Henry & Co. of Manchester, imitating the above goods in patterns, width, and style of finish. But a most palpable and unfair imitation is in the label, where, preserving the same general appearances as to size, colour of paper and ornaments, the word *Lancasterian* is substituted for *Lancaster*. That the whole is a manifest and intentional counterfeit, there cannot be a doubt. The goods will, undoubtedly, be sold for American Lancaster gingham, to which they are inferior in firmness of fabric and permanency of colour, to the manifest injury of the profits and reputation of the American manufacturer.

—*Boston paper.*

frauds thus results from the distance between the consumer and the producer. Protection looks to bringing them near together, and thus diminishing that power.

The planter who exchanges on the spot with the iron-master and the miller, makes large crops and grows rich, and the gain resulting from successful frauds would be trifling compared with the loss of character. The one who is distant from both makes small crops, which are sensibly increased in amount by the substitution of stones in lieu of cotton or tobacco. The *inducement* to commit frauds here results from the distance between the consumer and the producer, and is diminished as the loom and the anvil come nearer to the plough and the harrow.

The man who makes his exchanges in distant markets spends much time on the road and in taverns, and is liable to be led into dissipation. The more he can effect his exchanges at home, the less is the danger of any such result. The object of the monopoly system is that of compelling him to effect all his exchanges at a distance, and to employ for that purpose numerous wagoners, porters, sailors, and other persons, most of whom have scarcely any home except the tavern.

The more uniform the standard of value, the less does trade resemble gambling. The object of the monopoly system is to subject the produce of the world to a standard of the most variable kind, and to render agriculture, manufactures, and trade, mere gambling. The object of protection is to withdraw the produce of the world from that standard, enabling every community to measure the products of its labour by its own standard, giving labour for labour.

The object of the English system is to promote *centralization*, and its necessary consequence is that of compelling the dispersion of man in search of food.\* London and Liverpool, Manchester and Birmingham, have grown with vast rapidity by the same system which has exhausted Ireland, India, and the West Indies. The same journal informs us of the construction of a new town opposite Liverpool, of the great additions to London, and of the absolute necessity for promoting emigration from Ireland, Scotland, and even from England. As each successive province is exhausted, there arises a desire, and even a necessity for adding to the list. Bengal and Bombay having ceased to be productive, Afghanistan is attempted, and the Punjaub is conquered. The ruin of the West Indies is followed by an invasion of China, for the purpose of compelling the Chinese to perfect freedom of trade. The Highlands are depopulated, and Australia is colonized.

Mr. Jefferson held great cities to be "great sores." He desired that the manufacturer should take his place by the side of the agriculturist—that the loom and the anvil should be in close proximity to the plough and the harrow. Mr. Jefferson looked and thought for himself. He had studied political economy before it became necessary for Mr. Malthus to invent a theory of population that should satisfactorily account for the scarcity of food under

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\* "To those who have never reflected on the subject, it may seem like exaggeration to say that, as a general fact, at least nine-tenths of the lower orders suffer physically, morally, and intellectually, from being over-worked and under-fed; and yet I am convinced that the more the subject shall be investigated, the more deeply shall we become impressed with the truth and importance of the statement. It is true that but few persons die from direct starvation, or the absolute want of food for several successive days, but it is not the less certain that *thousands upon thousands* are annually cut off, whose lives have been greatly shortened by excess of labour and deficiency of nourishment. \* \* It is a rare thing for a hard-working artisan to arrive at a good old age; almost all become prematurely old, and die long before the natural term of life."—*Combe's Philosophy of Digestion*.

the unnatural policy of England, and thus relieve the law-makers of that country from all charge of mis-government. He studied, too, before Mr. Ricardo had invented a theory of rent, for the maintenance of which it was necessary to prove that the poor cultivator, beginning the work of settlement, always commenced upon the rich soils—the swamps and river-bottoms—and that with the progress of population he had recourse to the poor soils of the hills, yielding a constantly diminishing return to labour—and therefore it was that he thought for himself. Modern financiers have blindly adopted the English system, based on the theories of Malthus and Ricardo, and the perfection of civilization is now held to be found in that system which shall most rapidly build up great cities, and most widely separate the manufacturer from the agriculturist. The more perfect the centralization, the greater, according to them, will be the tendency towards improvement.

Mr. Jefferson was in favour of combined action, as being that which would most tend to promote human improvement, physical, moral, intellectual, and political. That it does so, would seem to be obvious, as it is where combination of action most exists that men live best and are best instructed—commit least crimes, and think most for themselves. There, too, there exists the strongest desire to have protection.

A recent traveller\* in the United States, says that “the facility with which every people conscientiously accommodate their speculative opinions to their local and individual interests, is sufficiently demonstrated by the fact, that the several States and sections of States, “as they successively embark in the manufacture, whether of iron, cotton, or other articles, become immediately converts to protectionist views, against which they had previously declaimed.”

It is here supposed that the desire for protection results from a selfish desire to tax others, but the persons exclusively devoted to manufactures of any kind are too few in number to affect the elections, and yet wherever mills or furnaces are established, the majority of the people become advocates of the doctrine of protection, and that majority mainly consists of agriculturists,—farmers and planters. Why it is so, may be found in the fact that they experience the benefits resulting from making a market on the land for the products of the land, and desire that their neighbours may do the same. Ignorant selfishness would induce them to desire to retain for themselves the advantage they had gained. Enlightened selfishness would induce them to teach others that which they themselves had learned.

Ignorant selfishness is the characteristic of the savage. It disappears as men acquire the habit of association with their neighbour men. The proclaimed object of the monopoly system is that of producing a necessity for scattering ourselves over large surfaces, and thus increasing the difficulty of association, and the object is attained. “The prospect of heaven itself,” says Cooper, in one of his novels, “would have no charm for an American of the backwoods, if he thought there was any place further west.”

Such is the common impression. It is believed that men separate from each other because of something in their composition that tends to produce a desire for flying to wild lands, there probably to perish of fever, brought on by exposure, and certainly to leave behind them all that tends to make life desirable. Such is not the character of man anywhere. He is everywhere disposed to remain at home, when he can, and if the farmers and planters of the Union can be brought to understand their true interests, at home he will remain, and doing so, his condition and that of all around him, would be im-

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\* Sir Charles Lyell.



proved. The habit of association is necessary to the improvement of man. With it comes the love of the good and the beautiful. "I wish," says the author of a recent agricultural address, "that we could create a general passion for gardening and horticulture. We want," he continues, "more beauty about our houses. The scenes of childhood are the memories of our future years. Let our dwellings be beautified with plants and flowers. Flowers are, in the language of a late cultivator, 'the playthings of childhood and the ornaments of the grave; they raise smiling looks to man and grateful ones to God.'"

We do want more beauty about our houses, and not only about our houses but about our minds, and that it may be obtained, we must rid ourselves of a system which makes the producer the servant of the exchanger. Such is the object of protection.

It is most truly said that "there is no friendship in trade." As now carried on, it certainly does not tend to promote kindly feelings among the human race, nor can it do so while the system remains unchanged. The great object of traders appears to be the production of discord. By so doing, England has obtained the supreme control of India. Her journals are unceasingly engaged in sowing discord among the various portions of this Union, and the effort would be successful were it not that there is no real discordance in their true interests.

It is time that the people of Great Britain should open their eyes to the fact that their progress is in the same direction in which have gone the communities of Athens, and Rome, and every other that has desired to support itself by the labour of others. It is time that they should awake to the fact that the numerous and splendid gin-shops, the perpetual recurrence of child-murder for the purpose of plundering burial societies, and the enormous increase of crime\* and pauperism, are but the natural consequence of a system that tends to drive capital from the land, to be employed in spindles and

\* "Humanity cries to us from the depths. If we will not answer her, it were better a millstone were tied about our necks, and that we were cast into the sea. Have we no sense of the precipice on which we stand? Have not the books of the prophetess been one by one burnt before our eyes—and does not the sybil even now knock at our doors to offer us her final volume, ere she turn from us and leave us to the Furies? Crime, not stealing, but striding onward. Murders, poisonings, becoming almost a domestic institution among our villages—husband, children, parents, drugged to their final home for the sake of the burial fees. Vice within the law, keeping pace with offence without. Incest winked at by our magistracy from its fearful frequency in our squalid peasant dwellings. Taxation reaching beyond the point at which resources can meet it, so that, at increasingly shorter intervals, we have to borrow from ourselves to make expenditure square with income. Poor Laws extended to Scotland and Ireland, where they were never known before, and new Poor Laws failing in England to check the advance of rates, and the growth of inveterate beggary, until property threatens to be swallowed up by the propertyless, and a terrible communism to be realized among us by a legalized division of the goods of those who have, among those who have not—the fearfulest socialism, the equal republic of beggary. 'Speak! strike! redress!' Three millions and a half of the houseless and homeless, the desperate, the broken, the lost, plead to you in a small still voice, yet louder than the mouthing theories of constitution-mongers. Man, abused, insulted, degraded, shows to you his social scars, his broken members, his maimed carcass, blurred in the conflict of a selfish and abused community.

"We say it must no longer be. We are a spectacle to gods and men—a by-word and a hissing to the nations.' Savages grow up in the midst of our feather-head civilization, wilder, more forlorn, more forgotten, and neglected than the Camanches, or the earth-eaters of New Holland. Ragged foundlings, deserted infant wretchedness, paupers hereditary, boasting a beggar pedigree older than many of our nobles, grow up from year to year, generation to generation, eat with brazen front into the substance of struggling industry."—*The Mother Country, by Sydney Smith.*



ships, and labour from the healthful and inspiring pursuits of the country, to seek employment in Liverpool and Manchester, where severe labour in the effort to underwork the poor Hindoo, and drive him from his loom, is rewarded with just sufficient to keep the labourer from starving in the lanes and cellars with which those cities so much abound.

That "there is no friendship in trade," is most true, and yet trade is the deity worshipped in this school. In it "commerce is king," and yet to commerce we owe much of the existing demoralization of the world. The anxiety to sell cheap induces the manufacturer to substitute cotton for silk, and flour for cotton, and leads to frauds and adulterations of every description. Bankruptcy and loss of honour follow in the train of its perpetual revulsions. To obtain intelligence an hour beforehand of an approaching famine, and thus to be enabled to buy corn at less than it is worth, or to hear in advance of the prospect of good harvests, and to sell it at more than it is worth, is but an evidence of superior sagacity. To buy your coat in the cheapest market, careless what are the sufferings of the poor tailor, and sell your grain in the dearest, though your neighbour may be starving, is the cardinal principle of this school.

A very slight examination will suffice to convince the reader that, as has been already shown, these frauds and overreachings increase in the ratio of the distance between the consumer and the producer. The food that has travelled far is dear, and worthy to be mixed with beans. The cotton produced in remote lands is dear, and it is profitable to mix it with flour. The shoemaker who supplies the auctions uses poor leather, and employs poor workmen.\* The object of protection is that of bringing the consumer of food to the side of its producer, there to eat plenty of good and nourishing food; the consumer of cotton to the side of its producer that he may not need to wear a mixture of wool and paste; and the shoemaker to the side of the farmer and planter, that the latter may be supplied with "custom-work," and not "slop-work." By this he gains doubly. He gives less food, and gets better clothing in return. By so doing, his own physical condition and the moral condition of the shoemaker are both improved.

The whole tendency of the system is to the production of a gambling spirit. In England, it makes railroad kings, ending in railroad bankrupts, like Henry Hudson. If we could trace the effect of the great speculation of which this man was the father, we should find thousands and tens of thousands of husbands and wives, parents and children, utterly beggared to build up the fortunes of the few, and thus increase the inequality of social condition which lies at the root of all evil. If we examine it here, we see it sending tens of thousands to California, eager for gold, there to lose both health and life.† It is sending thousands of boys and girls to our cities—the former

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\* Take, as an illustration in the system, the fraud in carpets, such as are usually sold at auction. "The head end of the piece is woven firmly for a few yards, when the web is gradually slackened, so that the inside of the piece bears no comparison with the outside. This is done so adroitly that it is impossible for any, but the best judges to tell in what the cheat consists. There is a double evil in this imposture, for the fabric not only grows poorer and thinner as the piece is unrolled, but the figures, containing of course the same number of threads throughout, will not match, their size being increased with the slackness in weaving. This is not only a positive cheat, but it greatly interferes with the honest dealer, whose goods being alike throughout, cannot of course compete in price. It is incredible to what an extent this practice is carried, and it is high time there was some legal remedy."—*Dry Goods Reporter*.

† "This is one of the strangest places in Christendom. I know many men, who were models of piety, morality, and all that sort of thing, when they first arrived here, and

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to become shopmen, and the latter prostitutes, while hundreds of thousands are at the same time making their way to the West, there to begin the work of cultivation, while millions upon millions of acres in the old States remain untouched. With every step of our progress in that direction, social inequality tends to increase. The skilful speculator realizes a fortune by the same operation that ruins hundreds around him, and adds to his fortune by buying their property under the hammer of the sheriff. The wealthy manufacturer is unmoved by revulsions in the British market which sweep away his competitors, and, when the storm blows over, he is enabled to double, treble, or quadruple, his already overgrown fortune. The consequence is, that great manufacturing towns spring up in one quarter of the Union, while almost every effort to *localize* manufactures (thus bringing the loom and the anvil really to the side of the plough and the harrow) is followed by ruin. The system tends to make the rich richer and the poor poorer. The coal miner of the present year works for half wages, but the coal speculator obtains double profits, and thus is it ever—the producer is sacrificed to the exchanger. With the growth of the exchanging class, great cities rise up, filled with shops, at which men can cheaply become intoxicated. New York has 4567 places at which liquor is sold, and the *Five-Points* are peopled with the men who make Astor-place riots. Single merchants employ 160 clerks, while thousands of those who are forced into our cities and seek to obtain a living by trade are ruined. Opera singers receive large salaries paid by the contributions of men whose shirts are made by women whose wages scarcely enable them to live.

The whole system of trade, as at present conducted, and as it must continue to be conducted if the colonial system be permitted longer to exist, is one of mere gambling, and of all qualities, that which most distinguishes the gambler is ignorant selfishness. He ruins his friends and wastes his winnings on a running-horse, or on a prostitute. To what extent this has been the characteristic of the men who have figured most largely in the walks of commerce, might be determined by those who are familiar with the concerns of many of the persons described in the following passage, which I take from one of the journals of the day :

“The great merchants of this great mercantile city, who were looked up to with reverence by the mammon-worshipping crowd twenty years ago—where are they? Ask Stephen Whitney and those few who have with him survived the shock of thirty years’ changes, and they will tell you, in commercial language, that 93 or 95 per cent. of their contemporaries at that date have since become bankrupt, and that the widows of most of those deceased are either “keeping boarding-houses” or have left friendless orphans to “the tender mercies” of a commercial world.

“Look at the ephemeral creatures of this and last year’s accidents, who now figure largely in the great world of New York, whether in the wholesale or retail line—whether in commerce, fashion, theatricals or religion—and ask where and what they or their children are likely to be twenty-years hence. The answer will be such as none of those most deeply in it will be apt to give with precise or probable correctness. ‘They shall heap up riches and know not who shall gather them;’ ‘they shall build houses and know not who shall inhabit them;’ ‘they shall plant vineyards and shall not eat the fruit of them;’ they shall ‘call their lands after their own names,’ and a generation shall rise up and possess them who shall laugh those names into a contempt from which the oblivion that shall succeed will seem a happy deliverance.”—*N. Y. Herald*.

who are now most desperate gamblers and drunkards.”—*Extract from a letter dated San Francisco, July 30.*

“*American Lottery*—Class No. 1—\$10,000 in actual prizes, sixty-six numbers, twelve drawn ballots. Whole tickets, \$10; half do. \$5. This lottery will be drawn at the Public Institute in San Francisco, on the third day of October, ’49, at twelve o’clock, M., under the superintendence of the managers.”—*Pacific News*.

As a necessary consequence of the system, money becomes more and more an object of consideration in the contraction of the important engagement of matrimony, and marriage settlements begin to appear among us. The newspapers of the day inform us of the recent execution of one for \$200,000.

If we look westward, it is the same. Centralization produces depopulation, and that is followed by poverty and crime. London grows upon the system that ruins India and fills it with bands of plunderers. The West and South-west are filled with gamblers, and land-pirates abound. The late war has brought into existence a new species of fraud, in the counterfeiting of land-warrants, and this is but one of the many evils resulting from that measure.

If we look back but a few years, we may see that the period between 1835 and 1843 was remarkable for the existence of crime, and it was that one in which the tendency to dispersion most existed. If we now look to the period between 1843 and 1847, we can see that there was a gradual tendency to the restoration of order and quiet and morality throughout the Union. In the last year, we may see the reverse. It was marked by turnouts, insubordination and violence of various kinds in country and in city. Such is the direct consequence of a diminution in the productiveness of labour. The employer must pay less, and the employed is unwilling to receive less than that to which he has been accustomed.

The tendency of the colonial system is to increase the number of wagons and wagoners, ships and sailors, merchants and traders, the men who necessarily spend much time in hotels and taverns, living by exchanging the products of others. The tendency of protection is to increase the number of producers—of the class that lives at home, surrounded by wives, children, and friends. The one builds up the city at the expense of the country; the other causes both to grow together.

Cities are rivals for trade, and when the farmer desires a new road to market he is opposed, lest it should enable him to go more cheaply to Charleston than Savannah; to New York more readily than to Philadelphia. London is jealous of Liverpool, and Liverpool of London. Discord is everywhere, and the smaller the amount of production, the greater must it necessarily be. Protection seeks to increase production, and thus establish harmony.

It is asserted that protection tends to increase smuggling, and therefore to deteriorate morals. To determine this question, it would be required only to ascertain what description of men transact business at our custom-houses. From 1830 to 1834, the chief part was done by men who had homes occupied by wives and families, for whose sake reputation was dear, but from 1835 to 1842, it passed almost entirely into the hands of men who lived in hotels and boarding-houses, and who had neither wives nor families to maintain. From 1843 to 1847, it went back to the former class. It has now returned almost entirely into the hands of agents—men whose business is trade, and who swear to a false invoice for a commission. The honest man, who desires to perform his duties to his wife and children, to society, to his country, and to his Creator, cannot import foreign merchandise. The system is a premium on immorality and fraud.

The object of protection is the establishment of perfect free trade, by the annexation of men and of nations. Every man brought here increases the domain of free trade, and diminishes the necessity for custom-houses. Every man brought here consumes four, six, ten, or twelve pounds of cotton for one that he could consume at home, and every one is a customer to the farmer for bushels instead of gills. Between the honest and intelligent man who desires to see the establishment of *real* free-trade, the Christian who desires to see an improvement in the standard of morality, the planter who desires an in-



creased market for his cotton, the farmer who desires larger returns to his labour, the landowner who desires to see an increase in the value of his land, and the labourer who desires to sell his labour at the highest price, there is perfect harmony of interest.

#### CHAPTER TWENTY-SECOND.

##### HOW PROTECTION AFFECTS INTELLECTUAL CONDITION.

THE higher the degree of intellect applied to the work of production, the larger will be the return to labour, and the more rapid will be the accumulation of capital. If protection be "a war upon labour and capital," it must tend to prevent the growth of intellect.

The more men are enabled to combine their efforts, and the greater the tendency to association, the larger is the return to labour, and the more readily can they obtain books and newspapers for themselves, and schools for their children. The object of the monopoly system is that of compelling men to scatter themselves over large surfaces, and into distant colonies, and thus to diminish the power of obtaining books, newspapers and schools. The object of protection is the correction of this error, and to enable men to combine their efforts for mental as well as physical improvement.

The greater the tendency to association, the greater is the facility for the dissemination of new ideas in regard to modes of thought or action, and for obtaining aid in carrying them into practical effect. The object of the *English monopoly system* is that of separating men from each other, and depriving them of this advantage. The object of protection is to enable them to come together, and being so, it would seem to be the real friend to both labourer and capitalist.

If we look throughout the world we shall see intellect increasing as men live more and more in communion with each other, and diminishing as they are compelled to separate. The man who is distant from market spends much of his time in taverns, where he obtains little tending to the improvement of mind or morals. The man who has a market at his door, may obtain books and newspapers, and he is surrounded by skilful farmers, from whom he obtains information. Not being compelled to spend his time on the road, he is enabled to give both time and mind to the improvement of his land, to which he returns the refuse in the form of manure, and thus it is that he himself grows rich.

Of all the pursuits of man, agriculture—the work of production—is the one that most tends to the expansion of intellect. It is the great pursuit of man. There is none "in which so many of the laws of nature must be consulted and understood as in the cultivation of the earth. Every change of the season, every change even of the winds, every fall of rain, must affect some of the manifold operations of the farmer. In the improvement of our various domestic animals, some of the most abstruse principles of physiology must be consulted. Is it to be supposed that men thus called upon to study, or to observe the laws of nature, and labour in conjunction with its powers, require less of the light of the highest science than the merchant or the manufacturer?"\* It is not. It is the science that requires the greatest knowledge, and the one that pays best for it: and yet England has driven man, and wealth, and mind, into the less profitable pursuits of fashioning and exchanging the products of other lands: and has expended thousands of millions on fleets and armies to enable her to drive with foreign nations the poor trade, when her own soil offered her the richer one that tends to produce

\* Wadsworth's Address to the New York Agricultural Society.

that increase of wealth and concentration of population which have in all times and in all ages given the self-protective power that requires neither fleets, nor armies, nor tax-gatherers. In her efforts to force this trade, she has driven the people of the United States to extend themselves over vast tracts of inferior land when they might more advantageously have concentrated themselves on rich ones: and she has thus delayed the progress of civilization abroad and at home. She has made it necessary for the people of grain-growing countries to rejoice in the deficiencies of her harvests, as affording them the outlet for surplus food that they could not consume, and that was sometimes abandoned on the field as not worth the cost of harvesting; instead of being enabled to rejoice in the knowledge that others were likely to be fed as abundantly as themselves. Her internal system was unsound, and her wealth gave her power to make that unsoundness a cause of disturbance to the world; and hence she has appeared to be everywhere regarded as a sort of common enemy.

To this unsound system we are indebted for the very unsound ideas that exist in regard to the division of labour. Men are crowded into large towns and cities, to labour in great shops, where the only idea ever acquired is the pointing of a needle, and that is acquired at the cost of health and life. The necessary consequence is the general inferiority of physical, moral, and mental condition, that is observable in all classes of English workmen.

Of all machines, the most costly to produce is Man, and yet the duration of this expensive and beautiful machine is reduced to an average of twenty-five or thirty years, under the vain idea that by so doing pins and needles may be obtained at less cost of labour. The principle is the same that is said to govern the planter of Cuba when he stocks his estate exclusively with males, deeming it cheaper to buy slaves than to raise them. As a necessary consequence, the duration of life is there short, and so is it in the crowded factories of the great "workshop of the world." The idea is vain. Pins and needles would be obtained at far less cost of labour were the workshops of Sheffield and of Birmingham scattered throughout the kingdom, thereby enabling the producers of pins to take their places by the side of the producers of food, and enabling all to enjoy the pure air and pure water of the village, instead of being compelled, after breathing the foul atmosphere of the workshop during the day, to retire at night to rest in the filthy cellar of the undrained street. Were the ore of Ireland converted into axes and railroad bars by aid of the coal and the labour of Ireland, the cellars of Manchester and Birmingham would not be filled with starving Irishmen, flying by hundreds of thousands from pestilence and famine, and compelling the labourers of England to fly to the United States, Canada, or Australia.

The English school of political economy treats man as a *mere* machine, placed on the earth for the purpose of producing food, cloth, iron, pins, or needles, and takes no account of him as a being capable of intellectual and moral improvement. It looks for physical power in connection with ignorance and immorality, and the result is disappointment.\* The workman of

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\* The commissioners for inquiring into the state of education in Wales, describe a state of mental condition perfectly in keeping with the following account of their physical condition:—"The houses and cottages of the people are wretchedly bad, and akin to Irish hovels. Brick chimneys are very unusual in these cottages; those which exist are usually in the shape of large coves, the top being of basket-work. In few cottages is there more than one room, which serves for the purpose of living and sleeping." Hence it is that there is so universal a want of chastity, resulting, say the commissioners, "from the revolting habit of herding married and unmarried people of both sexes, often unconnected by relationship, in the same sleeping rooms, and often in adjoining beds, without partition or curtain." [See Westminster Review, No. XCVI.]

this country is infinitely the superior of the workman of Manchester, and the reason is, that he is not treated as a mere machine. The object of what is called free trade is to degrade the one to the level of the other. The object of protection is that of enabling the poor artisan of Manchester or Leeds, Birmingham or Sheffield, to transfer himself to a country in which he will not be so treated, and in which he may have books and newspapers, and his children may be educated.

The colonial system involves an expenditure for ships of war, soldiers, and sailors, greater than would be required for giving to every child in the kingdom an education of the highest order; and those ships and men are supported out of the proceeds of taxes paid by poor mechanics and agricultural labourers, whose children grow up destitute even of the knowledge that there is a God. The object of protection is to do away with the necessity for such ships and men, and to raise the value of labour to such a point as will enable the people of England to provide schools for themselves.

In the colonies, the perpetual exhaustion of the land and its owner has forbidden, as it now forbids, the idea of intellectual improvement. To the West Indies no Englishmen went to remain. The plantations were managed by agents, and the poor blacks, under their agency, died so fast as to render necessary an annual importation merely to keep up the number. In India, where education was from the earliest period an object of interest to the government, and where every well-regulated village had its public school and its schoolmaster, in which information was so well and so cheaply taught as to furnish the idea of the Lancaster system, it has almost disappeared. In the *thana* of Nattore, containing 184,509 inhabitants, there were, a few years since, but 27 schools, with 262 scholars. The teachers were simple-minded and ignorant, with salaries of \$2.50 per month, and the scholars were without books. The number who could read and write was 6000. Such was the state of education in one of the best portions of Bengal. In the Bombay presidency, with a population of six and a half millions, there were 25 government schools, with 1315 scholars, and 1680 village schools, with 33,838 scholars. In the Madras presidency, out of 13 millions, there were 355,000 male and 8000 female scholars, and the instruction was of the worst kind.

In Upper Canada, in 1848, the number of children, male and female, under fourteen years of age, was 326,050, of whom but 80,461 attended school.\* So far the state of things is better than in other colonies; but when we come to look further, the difference is not very great. The intellect of man is to be quickened by communion with his fellow-man, of which there can be but little where the loom is widely distant from the plough, and men are distant from each other, all engaged in the single pursuit of agriculture. How slow has been the growth of concentration in that province, may be seen from the following facts. Numerous small woollen mills furnish 584,008 yards of flannel and other inferior cloths, working up the produce of perhaps 250,000 sheep. Fulling mills exist, at which about 2,000,000 pounds of woollen cloths of household manufacture are fulled. Further, there are—

1 rope-walk.	11 pail factories.	1 ship-yard.	1 vinegar factory.
1 candle factory.	1 last factory.	1 trip hammer.	5 chair factories.
1 cement mill.	4 oil mills.	2 paper mills, making	2 brick-yards.
1 sal-eratus factory.	3 tobacco factories.	1900 reams each.	1 axe factory, produc-
8 soap factories.	2 steam-engine facto-	3 potteries.	ing 5000 per annum.
3 nail factories.	ries.	1 comb factory.	6 plaster mills.†

And these constitute the whole of the manufacturing establishments of

\* Appendix to first Report of Board of Registration.

† Ibid.



that great district of country, much of it so long settled. There is, consequently, little or no employment for mind, and the consequence is, that all who desire to engage in other pursuits than those of agriculture fly to the South. There are now within the Union, it is said, not less than 200,000 Canadians, and with every day the tendency to emigration increases.\* If we look to Nova Scotia and New Brunswick, it is the same. There is there no demand for intellect, and any man possessing it flies southward. Forty years since it was asked, "Who reads an American book?" That question has long since been answered; but it may now be repeated in reference to all the British provinces. Who reads a Canadian, a Nova-Scotian, or a New Brunswick book? Upper Canada has two paper-mills capable of producing about ten reams of paper per day, being, perhaps, a tenth of what is required to supply the newspapers of Cincinnati. Forty years since, the question might have been asked, Who uses an American machine?" and yet the machine shops of Austria and Russia are now directed by our countrymen, and the latest improvements in machinery for the conversion of wool into cloth are of American invention. The British provinces have had the *advantage* of perfect free trade with England, the consequence of which is, that they are almost destitute of paper-mills and printing-offices, and machine shops are unknown, while the Union has been a *prey to the protective system*, that "war upon labour and capital," the consequence of which is, that paper-mills and printing-offices abound to an extent unknown in the world, and almost equal in number and power to those of the whole world,† and machine shops exist almost everywhere. These differences are not due to any difference in the abundance or quality of land, for that of Upper Canada is yet to a great extent unoccupied, and is in quality inferior to none on the continent. They are not due to difference in other natural advantages, for New Brunswick has every advantage possessed by Maine and New Hampshire, and Nova Scotia has coal and iron ore more advantageously situated than any in the Union. They are not due to difference of taxation, for Great Britain has paid almost all the expenses of government. To what, then, can they be attributed, but to the fact that those provinces have been subject to the *monopoly system*, and compelled to waste their own labour while giving their *products* in exchange for the *services* of English men, women, and children, employed in doing for them what they could have better done themselves, and losing four-fifths of their products in the transit between the producer and the consumer? Place the colony within the Union—give it protection—and in a dozen years its paper-mills and its printing-offices will become numerous, and many will then read Canadian books.

In England, a large portion of the people can neither read nor write, and there is scarcely an effort to give them education. The colonial system looks to low wages, necessarily followed by an inability to devote time to intellectual improvement. Protection looks to the high wages that enable the labourer to improve his mind, and educate his children. The English child, transferred to this country, becomes an educated and responsible being. If he remain at home, he remains in brutish ignorance. To increase the

\* "I do not exaggerate when I say that there are no less than 200,000 Canadians in the United States; and, unless efficacious means are taken to stop this frightful emigration, before ten years two hundred thousand more of our compatriots will have carried to the American Union their arms, their intelligence, and their hearts."—*Letter of Rev. Arthur Chiniquy.*

† The whole quantity of paper required to supply the newspaper press of Great Britain and Ireland is 170,000 reams; while that required for the supply of *four papers* printed in New York, Philadelphia, and Baltimore, is about 110,000, and the whole number of newspapers is about 2400.

productiveness of labour, education is necessary. Protection tends to the diffusion of education, and the elevation of the condition of the labourer.

At no period of our history has the demand for books and pictures, or the compensation of authors or artists, been less than in the period of 1842-43. At none have they grown so rapidly as from 1844 to 1847. They now tend downward, notwithstanding a demand that is still maintained by the power that yet exists of obtaining merchandise in exchange for certificates of debt. When that shall pass away, we shall see a recurrence of the events of the free trade period.

If we desire to raise the intellectual standard of man throughout the world, our object can be accomplished only by raising the value of man, as a machine, throughout the world. Every man brought here *is* raised, and every man so brought tends to diminish the supposed surplus of men elsewhere. Men come when the reward of labour is high, as they did between 1844 and 1848. They return disappointed when the reward of labour is small, as is now the case. Protection tends to increase the reward of labour, and to improve the intellectual condition of man.

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NEW TELEGRAPHIC DICTIONARY.—A French paper, the *Presse*, gives some account of experiments lately made at the house of M. de Girardin, with a new telegraphic dictionary, the invention of M. Gonnon. Despatches, in French, English, Portuguese, Russian, and Latin, including proper names of men and places, and also figures, were transmitted and translated, says this account, with a rapidity and fidelity alike marvellous, by an officer who knew nothing of any one of the languages used except his own. Dots, commas, accents, and breaks were all in their places. This dictionary of M. Gonnon is applicable alike to electric and to aerial telegraphy, to transmissions by night and by day, to maritime and to military telegraphing.

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GUTTA PERCHA SOLES.—The Commissioners of the Greenwich Hospital Schools authorized, at the beginning of the year, a trial of the gutta percha soles by the eight hundred boys under their charge, and after a severe test of six months the gallant superintendent, Lieutenant Rouse, now reports that they are decidedly more durable and economical than leather, and from their peculiar power of repelling wet, promote the health of the wearers.—*Nautical Standard*.

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SALE OF SHORTHORNS.—At Mr. Colvin's sale of shorthorns at Monkham's Hall near Waltham Abbey, Essex, on Thursday last, sixty-seven head, comprising bulls, cows, and calves, fetched the large sum of £2033 17s., averaging £30 7s. (\$150) each. Mr. Henry Strafford, the editor of the "Herd Book," was the auctioneer.

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IN his late address at Boston, Mr. Skinner defines commerce, in its true sense, to be merely the exchange of one sort of produce or service for another sort of produce or service, and adds—that commerce, in the light in which it should be regarded by legislators, consists in about the proportions of—

"Within families, 50 per cent. ; in neighbourhoods, 25 ; beyond the neighbourhood, but within the nation, 20 ; with foreign nations, 5 : total 100."

SIGHTS SEEN AND OBSERVATIONS MADE ON A LATE  
VISIT "DOWN EAST."

BY THE EDITOR OF THE PLOUGH, THE LOOM, AND THE ANVIL.

HAVING been for some time away from our post under special call from the "MASSACHUSETTS CHARITABLE MECHANICS' ASSOCIATION," to deliver the address at their late exhibition of Domestic Manufactures; if not now expected, it may not be deemed amiss to give some account of what was seen and noted on this our most recent visit, to a people, the more worthy of contemplation in their institutions and habits for their making at this day, and for some years past (especially the people of Rhode Island and Massachusetts), unexampled progress in everything that can contribute to give character, elevation, and strength to the physical and moral position of commonwealths.

If, as Pope said,

"The proper study of mankind is man,"

so may it be said of man, as of the tree, that he is to be best judged by *his fruits*! Yes, men and States, which are made up of men, are to be judged by the progress they have made in the arts of civilization, and in all else that constitutes the crowning glory of our species, over all other classes of animated beings, by the use they have made of those faculties that have empowered man to execute with the utmost accuracy, the tasks, apparently beyond his reach, assigned to him by the poet when commanded—

"Go, wondrous creature! mount where science guides,  
Weigh air, measure earth, and calculate the tides."

Tested by this standard, how poor are the prospects for man under all other governments and in all other countries, compared with ours, in which *man* is at the same time equalized and *elevated*? And then again, restricting our contemplation to our own country, as to the development of their natural resources and advantages, how striking is the difference between some States and "other some!" And here, again, let us repeat the inquiry, Can any phenomena be more worthy of investigation by the philosopher or the philanthropist than the causes which produce these differences?—causes under the influence of which some States are seen to rest like a good ship at sea, water-logged or becalmed, while others, standing on the same course, in the same latitudes, are shooting ahead with uniform and almost immeasurable velocity!

Firmly impressed with a belief that this wonderful difference in the condition of different States results from influences that bear in the first place and most especially upon their *agricultural development*, is it not imperative on the conductor of a journal devoted as this is, to that greatest of all interests, to endeavour to understand and to expose the subject in its true light! That duty we have endeavoured in part to perform, in the ADDRESS already referred to, and which, if not in this, will be published in some early subsequent number; the purpose in hand now being merely to give a *coup d'œil* sketch of some of the sights and incidents that fell under a hasty notice, during an agreeable journey of a couple of weeks "down east."

But first let us aver, in conscious sincerity, that as to the only other quarter of the Union—the *South*—with which we can yet claim to have much acquaintance, founded on personal intercourse, we yield to no living man in appreciation of their natural advantages and in admiration of their brilliant intellectual faculties and their exemplification of the higher qualities of our nature; nor have we failed to proclaim these sentiments publicly, in very large assemblies of northern friends, women and men, when compelled to respond inadequately to



notices too flattering, of our own humble efforts to promote the industrial interests of the whole country. But this very admiration of southern men and southern resources—men with whom we are identified by birth and feeling, and among whom we should never doubt of finding a friend in every farmer's house; all this makes us but the more anxious to look candidly and truly into their condition and prospects, and so to discover how and why it is that, with their own bright skies and bright abilities, with their glorious climate and unparalleled natural resources, they are lagging behind their sister States in the great race of popular growth and advancement in arts, manufactures, commerce and education? Yes, we venture to aver, that no fruiterer ever looked with more sincere solicitude for the source of blight and sterility in a favourite tree, than have we to see if we could discover how it happens that our dear old mother Maryland, and Virginia and the Carolinas, should fail in this noble contest for the development of their resources and the successful application of the faculties of their sons, to the *various* industries for which they possess the elements in such redundancy! Can any man, claiming to be a true born son of these States, be indifferent to the question—How is it that while they, through a period of half a century after the Revolution, with all their “peculiar institutions” in full force, continued to leave the New England States further and further in their wake, should, as the census proclaims, after *and coeval* with a certain epoch in our commercial policy, established by the voice of the South, see the gap between them and their Eastern sisters (until then widening) begin to be closed, until now, we find Massachusetts adding 300,000 to her population in the last ten years, and coming out with 1,000,000 of people!—passing unceremoniously by her old sister North Carolina; fast coming up with the “mother of States,” and threatening soon to show her heels to that region of our country, the most favoured of God in all the natural power and capabilities in which a high-minded people can desire to excel, and of which they should promptly and proudly avail themselves? Can, let us repeat, any true born son of these States be indifferent to such a problem? or will any but the most prejudiced and narrow-minded refuse to hear the views of one who, with all his local attachments in their favour, professes to be, even on that account, the more desirous to judge impartially and to speak truly? If such there be, then all we have to say is—that it is not for them that we give our nights and days, and all our poor abilities to these investigations—but only, after all, as they are directly or remotely *connected with the landed interest*. Such men, so blinded by prejudice, and so deficient in liberality, must continue, as some of them are doing, to *withdraw their support from the Plough, the Loom, and the Anvil*; but though depending on it for a livelihood, and compelled to pay away on its publication the equivalent of 10,000 bushels of Ohio corn (to be made with these three fingers) before we have enough left for an ash cake, we will *continue to proclaim what we believe to be the truth*, nor “flatter Neptune for his trident.” “Do justice though the heavens fall,” is our motto, in our editorial position; and so long as we presume to exercise that high office (when its functions are properly appreciated), we must continue to endeavour to reveal the real source of agricultural stagnation as well as of agricultural improvement. But on this subject, the paramount object of our solicitude and our duty, it is not our design, as we have said, to speak in this mere running sketch of what we saw in New England. We did so, incidentally, in the address before the manufacturers and mechanics of Massachusetts, and to that we again refer, commending it to the kindly attention of our agricultural readers, for the reason that, as there expressed, we believe that the Plough may truly say of the Loom and the Ship—these are “bone of my bones, and flesh of my flesh,” and that, in a word, all the great branches of our national industry are so blended, that no

policy or influence can impair one without disturbing the healthful action of the others.

To describe, however, in one article all that we saw, of all the exhibitions of manufacturing, agricultural, and horticultural industry and ingenuity, would lead us into details and disquisitions as much beyond the patience of the reader as it would excel the space at our command, so we must promise it in "broken doses," as we can prepare and the patient receive them, and first in order of time and locality came

### THE NEW YORK STATE FAIR.

The reader will probably be best content, and most implicitly rely on the Society's own statement, in a journal of their own, kept and published for that purpose, and for other objects; for, although, according to an old vulgar saying, it would be "a dirty bird that fouls its own nest," the State doubtless expects the most exact and impartial account of the results of the application of its own funds, from those to whom it intrusts their expenditure. Here then is that account; and if, as we have been told every year, for many years successively, their exhibitions attest improvements in all departments, "far exceeding," as they say, "the expectations of the most sanguine," the wonder arises, not that "so much," as they further tell us, "remains to be done"—for

"Man never is, but always *to be* blessed"—

but does it not warrant the hope that such constant general and decided improvement will very soon now bring about the time, when the average of the great staple of the State, wheat, instead of falling below fifteen, as in 1845, will go up to double that number of bushels per acre? For ourselves, however, we may be permitted to express our humble apprehension, that such a consummation will ever be far distant, with a people who widely proclaim and publish, and believe in and act upon the belief, that "our farmers must *surrender the idea of a domestic market* to furnish the demand and measure of the value of their productions, and must prepare themselves to meet the competition of the commercial world, in the markets of the commercial world, in the sale of the fruits of their labour. The marts of commerce must be their market, and the demand and supply which *meet in those marts* must govern their prices."\* Now, on the contrary, we hold the reverse of all this to be true, and that the agriculture of no country ever did, or ever can advance generally to a high state of improvement which does not in its policy look to the *consumption on the land of the products of the land*; but—we shall see.

If the immense crowd in attendance at the late fair, was attracted not so much by common curiosity, as by enlightened solicitude for instructive observation and agricultural improvement; and if that improvement may be measured by the *number of spectators*, then may we infer that the result was worthy of the Empire State, its patronage and its resources. To us, on a cursory view, the show appeared to be spread over a space large, far beyond the requirements of necessity or convenience; and yet, to be so huddled and compressed at some particular points of exhibition, as to be not easily accessible for deliberate examination. These, however, are small faults, if real, and may be deemed unworthy of notice, in contemplation of the grand *tout ensemble*, of which here is an official statement from the journal of the Society itself.

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\* Governor Wright's Address.

## ANNUAL FAIR.

"The annual exhibition and fair of the society which has just closed has been one of the most successful ones ever held. The increased interest which is manifested by the farmers of our own and neighbouring States is in the highest degree encouraging. The improvement which has taken place in cattle, horses, sheep and swine, as well as in implements useful and necessary to the farmer, since the first public exhibition of the society was held in 1841, far exceeds the expectations of those most sanguine. The improvements, also, in the farm itself and its products, have been equally apparent, and the society may well congratulate itself upon the results of its efforts to improve the agriculture of the State. Much remains to be done, and, taking courage from the success which has attended the efforts already put forth, the society will, doubtless, with renewed energy prosecute the great work committed to its charge.

"The number of persons in attendance has been probably larger than at any previous show of the society—the lowest estimate exceeding 90,000 persons. The receipts have been much greater than any previous year, amounting to \$10,503.19, exceeding the receipts of last year \$2,321.06. We have not space to speak of the particular characteristics of this Fair. The number of entries in the stock departments were—cattle 475; horses 286; sheep 567; swine 32; poultry 107; miscellaneous 19. In the mechanical and domestic department, the entries were very large, far exceeding previous years.

"We give the awards of the judges, and the list is as complete as it could be made. The reports, many of which are of great interest, will be published in the Transactions of the Society to be submitted to the legislature at its next session."

In the brief and well-expressed address of the President of the State Society, E. P. PRENTICE, Esq., we are glad to see the good taste marked by the omission of the mawkish expletive, *His Excellency*, too often applied in referring to "the President of the United States," the latter being the only correct, and at the same time simplest and highest title known in our country, where, by the by, titles as high as we dare yet venture upon are as eagerly sought, as lavishly bestowed, and as highly prized, as in any country under the sun, maugre our boasted republican simplicity, and love of the largest liberty, almost bordering on an avowed contempt for the laws of *meum and tuum*. Meeting at New York a grandson of GENERAL LAFAYETTE, we persuaded him to accompany us to this great exhibition of agricultural industry, and deem it not out of place to add, that assured of meeting there its wonted hospitality, we took him at once to the Manor House to breakfast, where we were received by the proprietor with an unaffected ease and affability inherited of his worthy sire, the late estimable Patroon. In a ramble before breakfast, through his extensive graperies and orchards of peaches, and nectarines under glass, and over his enchanting grounds, beautified by shrubbery of every variety, and flowers of every colour and perfume, this worthy descendant of Lafayette must have been gratified on encountering a fine marble bust of Washington on an elevated pedestal on one hand, and on the other, opposite, one of his venerated grandsire, who "held no second place in the heart of Washington."

To our young friend doubtless as to us, the incident was as gratifying as it was to him probably unlooked for. An invitation to return to dinner was so cordially tendered, and so fairly and affably seconded, as to be irresistible, nor were the pleasures of the table any the less relished for the pre-



sence of Judge Wayne and other sprightly and charming personages around it. Generally we should deem it inadmissible to refer publicly to such private civilities, however worthy to be otherwise remembered; but we are speaking of incidents that made part of a general holiday excursion; and after being confined with two thousand passengers all the previous night, on board a North River steamboat, one may be allowed to analyze and dwell upon incidents so refreshing, as the traveler notes, and forgets not, the *oases* that he unexpectedly comes upon in the desert.

Otherwise the most agreeable incident was an encounter on the ground, far away from their homes, too, with *Col. Wilder*, President of the Norfolk County Massachusetts Agricultural Society, with the Apple King, "*French*, only in name, being a hearty and thriving sprout of the true Saxon stock, with Mr. WELD, and other welcome friends from the land of steady habits." From the first-named, who so well knows how to practice the proprieties as well as the hospitalities of his station as President of a company, a knowledge not quite universal, we both received formal and kind invitations to attend the fair, to come off at *Dedham*, Massachusetts, on the 25th of the same month, and of which we shall have occasion to speak more particularly hereafter.

In the meantime came round

#### THE EXHIBITION OF DOMESTIC MANUFACTURES BY THE MASSACHUSETTS CHARITABLE MECHANICS' ASSOCIATION,

to which also Mr. Lafayette had been invited.

Of this magnificent Exhibition of the progress of American Manufactures and mechanical ingenuity and perfection of workmanship, it would be out of place to speak, in much detail, in this journal except of the *Agricultural Department* of it; and for an account of that, we shall abide by the report of the appropriate committee when it reaches us. We can only say now, that if what we saw were not *picked samples*—if the manufacturers of them have plenty more of the "same sort," then did that department illustrate the great truth we insist upon most: that every art and product of labour is multiplied and improved, when circumstances allow men to follow the laws of nature, concentrating instead of scattering population, and enabling men to combine their talents and exertions for common benefit by placing the consumer close to the producer; instead of "surrendering the idea of a domestic market, and preparing to meet the competition of the commercial world in the markets of the world." The catalogue before us, which we shall be happy to show to any one wishing to have a better though still but imperfect idea of this wonderful display, enumerates near two thousand separate entries, many of these containing a great variety of distinct objects. But to have anything like an adequate conception of this biennial fair, one must have viewed leisurely, and in detail again and again, a show, that, as we have elsewhere said, was calculated at once to confound by its variety and to charm by its general excellence. Though there was, throughout the two weeks of the exhibition, a constant stream of visitors passing through the spacious halls, everything was so well ordered and distinctly labelled, that no confusion occurred; and even the press, worked under the supervision of Messrs. Dawbrell and Moore, chronicled on the spot the sparkling incidents of each day, from the brilliant pen of Perley Poore. But to the most cursory observer, it was obvious after all how much of the gratifying results was due to the careful and well-ordered arrangements of the Executive Committee, Messrs. Hooper, Osmyn, and Lincoln, and their zealous and efficient associates.

As to their *levée*, held in the spacious saloons of the Revere House, after

the delivery of the address at the Lowell Institute, what shall we say of it? Let the reader imagine some three hundred or four hundred gentlemen, members of the Association, after congratulating each other and receiving the congratulations of their invited guests, on the success of their admirable Institution, being presently conducted by the President to view and participate in such a display of good things; of fruits, flowers, and refreshments for the "inward man," as to leave it difficult to be said what sense was the most captivated. Truly, and in few words, he who would have an adequate idea of choice fruits and floral beauties in all their perfection and gorgeous variety of flavour, colour, and perfume, must go at last to the desperate soil and cold climate of New England, where the magic presence of prosperous consumers, insuring a *remunerating market on the spot*, gives wonderful speed and fruitfulness to the plough, with the highest skill in the use of the budding-knife and the pruning-hook, and all the arts of terraculture. Yes, after all, it is population (as Mr. Carey says in his profound work) that makes the food come from the ground.

Instead of idly whiling away his midsummers at watering-places, or humming forever the senseless tune of "free trade," let the young southern landholder, as we have often advised, on coming to his estate, make a visit "down east;" not to learn there any better than he can learn at home, how to sow and how to reap; how to breed and how to fatten; but to see how *precious is time*, and how good roads and strong and perfect animals and machines, and every other contrivance, are made to contribute to *the efficient use of time*, wherever employments are infinitely diversified, as in New England; the manufacturer being there placed, as recommended by Mr. Jefferson, by the side of the agriculturist.

As to the beautiful entertainment to which we are referring, it would be unfair not to award the credit, on this occasion, of his well-known taste and liberality, to Mr. Stephens the proprietor, and to his gentlemanly associates of the Revere House, and to Mr. Hooper the praise of eminent propriety and success in his presidency over all.

Viewing all such exhibitions, however, in the light most worthy of regard, that is, as at once testing and encouraging the *progress of the arts at the time*; and as the means, in fact, of noting historically the *epochs* that signalize that progress; regarding such exhibitions in these lights, we cannot but think that the good plan of the Massachusetts Association, in holding their exhibitions *biennially*, would be still further improved by restricting them to once in three or even four or five years.

These annual exhibitions appear to us to run, as it were, too much into each other, confounding the public judgments, as they leave no distinct traces by which to compare the fruits of one with the preceding, thus disabling us from judging with anything like precision, of the successive triumphs of philosophical investigation and scientific discovery. In a word, there may be "too much of a good thing," to say nothing of the dog and the pudding, and though these too frequent contributions may "put money in your purse," we know it to be the impression of many well-judging men, that by too frequent repetition they lose in interest and usefulness. A single year may serve to bring out some wonderful discovery in a particular line of art or industry, and for proclamation of that, we may generally rely on the press; but for great national exhibitions of the advancement of all the arts and sciences, by an actual display of their fruits, may not their value be much impaired by their frequency? We only ask for information. How would it do to hold alternate exhibitions by the Institutes at Baltimore, Philadelphia, New York, and Boston?

## FARMS AND VILLAGES AROUND BOSTON.

We might here speak of agreeable and instructive excursions to farms and villages in the neighbourhood of Boston; of a pleasant ride out with Mr. King, to an old friend, Mr. Stone's farm, six miles distant, and "strike up," as Jack Downing would say, the southern reader, with an account of the *great variety* of things it *daily* produces for the Boston market; making in the aggregate a sum that would surprise him, \$2000 for fruit being one of the many items. But we must take some other occasion to speak of these things. From an eminence on Mr. Stone's farm, we overlooked the valley of West Cambridge, which he considered the most productive area of equal extent he had ever seen, in the course of, as we happen to know, extensive travel in our country; for, some years since, we had the pleasure to meet and make his acquaintance on the Ohio and in New Orleans. Ten thousand barrels of apples were specified as one item of the products of the very limited space in view of us.

One of the wonders of New England, is the number of places you may visit in a given short space of time, by means of her railroads, on which you may at almost any hour of the day issue out from Boston, and traverse every part of the country, as the spider does his web, from centre to circumference, and that at a rate of twenty-five miles an hour, and at a very moderate fare; not slowly, as on the Baltimore and Ohio road, thirty-nine miles to Washington, in two hours and thirty minutes, fare \$1 80; or to Cumberland in much better time, 179 miles, but at the tune of \$7; while the fare from Boston to New York, 236 miles, by way of Springfield, is but \$5. For ourselves, it is due in gratitude here to make acknowledgment that we are welcomed to go free on all other roads but the B. & O. Even from Boston to Little Rock in Arkansas, have all proprietors of public conveyances had the kindness to say, "*Ride freely, and welcome.*" Well we know you established at your own cost the first work devoted as well by its express title, to 'INTERNAL IMPROVEMENTS,' as to the plough, long before almost any of our great works were thought of; and as we believe your habit is, as you go along, to see what you can note, and '*prent*' it too for public good, we are pleased to have you go on your way observing."

We feel that we owe this general and grateful acknowledgment in passing, to all steamboat and railroad companies, as far as we have travelled within the bounds mentioned, and most assuredly while the Lord spares us, will *endeavour to justify it*. By the by, it was but a few days since that we were amused in reading some of our own earnest entreaties and arguments to the public, to prevail with it thirty years ago *to think of the value and the practicability* of many of our now great internal improvements, and among them, the completion of the Chesapeake and Ohio and the Chesapeake and Delaware Canal, and of the construction of the Delaware and Hudson Canal; but let that pass. To return to our subject.

We might here speak of agreeable excursions to New Bedford, the whale-shipping town, where men, as we saw, move large houses as we move chicken coops: to the beautiful and thriving town of Taunton, Massachusetts, the seat of the great copper factory, of the enterprising and intelligent brothers, the Messrs. Croppers. We might perhaps well recompense the reader for the space it would occupy, could we do justice to the magical inventions of Mr. BIGELOW, in carpet and counterpane manufacturing machinery, as exhibited at Lowell and Clinton; inventions approaching in the view of the uninitiated so near to witchcraft, that one may believe that in olden times, not a thousand miles from where they are at work, the projector would have been put to the



stake. Indeed, we are not quite sure that there are not some remaining, who, were he in their neighbourhood, would have recourse to an old horse-shoe as a talisman. But of all these things we must be content, for the present at least, with the grateful remembrance of the attentions of Mr. Bigelow, Mr. Fairfield, and others, to whom we were indebted for a view of them, avowing only the hope of being able to speak of them all more in detail, and particularly in explanation of the value of such establishments to the *agriculture of a country*. But before we turn to the next Fair, be it mentioned that at Mr. Bigelow's factories we saw a *single room*, arranged for eight hundred women to work at the looms, all in view of each other, and all perfectly well lighted and ventilated.

### THE PRINCIPLES OF VENTILATION.

It may be well here to admonish the reader that in all horticultural and farm buildings, there is one great principle on which every system of ventilation depends, and which had been provided for here in a manner more emphatic and perfect than we had ever seen. We cannot help thinking it might be applied to the more thorough ventilation of our public ships.

In ventilating buildings, says a recent writer on the subject, two things should be borne in mind; and as upon the proper attention to these depends the success of the plan, particular attention should be paid to see them carried into effect. These are the supply of the interior with fresh air, and the withdrawing it when vitiated. And here we would request attention to the fact, the truth of which the evidence of all experience goes to prove, that no foul air can by any possibility be extracted from the interior of any building, however well arranged the means to insure its exit may be, unless *an ample supply of pure air is admitted*. It is the force of air entering that causes the vitiated air to be expelled. It is necessarily impossible to have ventilation without a movement of air.

Our readers will do well to remember this. How often do we find horticultural and agricultural buildings, which are said to be ventilated, provided either with one opening somewhere near the top, through which the foul air is expected to pass, while the lower part is kept carefully closed, or with an opening near the bottom, made for the entry of fresh air, whilst no means are provided for getting out the foul.

There came up through the floor of this great factory at several points powerful currents of fresh air, keeping all pure and wholesome.

### THE MIDDLESEX FAIR, AT CONCORD.

The politeness of our old and esteemed friend, Mr. BUCKINGHAM, of Cambridge, had tempted us to visit (though it could be but for an hour) the agricultural meeting at *Concord in Middlesex*. From the wealth of the county, and the spirit of all the surrounding country, the very air being redolent of the breath of improved animals, and the perfume of fruits and flowers, we had expected—more than we saw! Doubtless it was our misfortune in not having time to examine leisurely, what is to be presumed was somewhere on the ground. We were forced to hurry away, with unfeigned regret that it was not in our power to partake of the farmer's dinner, to which we were so kindly and cordially invited by the venerable President, Mr. Buckingham. Another year may give us a better chance to see and to taste the good things of Middlesex. *So mote it be.*

The next in order in the neighbourhood of Boston came

### THE NORFOLK COUNTY AGRICULTURAL SOCIETY'S FAIR AT DEDHAM.

Disappointed last year in witnessing the *Maiden Fair* of this new society, in the old county of Norfolk, we determined to wait now for that and for the one at Salem.

The President having assigned to us the pleasing duty of accompanying our fellow-guest at the Revere House, Mr. G. P. R. JAMES, to the ground, for which he (Col. Wilder) had made the requisite *vehicular provision* (for these Yankees know how to "*do all things up about right*"), we arrived at the beautiful town of Dedham in ample time to be in the first place cordially received and most affably entertained at the hospitable residence of John Gardner (formerly the mansion of Fisher Ames), by himself and lady; and afterwards to take a deliberate survey of the ploughing match, and of such an exhibition of swine, of poultry, of fruits and flowers, and of the handiwork of the ladies, wives and daughters of the farmers of Norfolk, then and there generally present, as it had never been our lot to witness before.

We do not know how it is, but Col. WILDER, the President, must have not only a tact of his own, but the co-operation of associates, such as few men are blessed with, to have a great industrial exhibition like this, only the second of the society, *spring at once into such excellence*, like Minerva from the head of Jove—beautiful and perfect in all her parts and proportions, and armed at every point. Reader, only think of pen after pen of hogs, more perfect, if possible, in shape, than engravings we have been accustomed to regard as pictorial exaggerations of swinish excellence; of coops of poultry of every colour, shape, and variety, from all parts of the world; as many as would extend along one side of Washington Square in Philadelphia. And such a display of fruits, and flowers, as would take a WALKER to classify and a HOVEY to describe. And then the needlework and embroidery of the ladies, so various and so exquisite as that justice could only be done to it by the fine taste and fingers that conceived and executed such designs. And then again imagine all these vegetables and fruits and flowers, and specimens of housewifely industry and taste, and the thousand who enjoyed the view of them, being conveniently displayed and accommodated under a *single tent*, one large enough, as it was said, for ten thousand men to stand under at the same time!

The weather was magnificent. Heaven itself seemed to smile in reward of the industry that could produce such an exhibition; and the smiles of heaven seemed as reflected by the smiles of the farmer's wives and daughters, who honoured the show with their presence, and made the best part of it. To raise up armed men, Cadmus sowed, as we are told, the teeth of a serpent. How Col. Wilder brings around him so many of the fairer sex, more resistless than men in arms, wherever he presides, as the song says, "I should very much like to know."

At a given hour, a procession was formed on the ground, led by the President conducting the orator of the day, Mr. Adams (himself a munificent patron of the Society), and the invited guests, who here were never lost sight of, to the meeting-house, which was crowded in every part, to listen to a patriotic and eloquent address, in which the orator did ample justice to the theme.

The religious exercises being over, which always in New England make a part of the ceremonies on such occasions, enlivened here as everywhere else in New England, as we must think *mal*-appropriately, with the sound of drum and fife, so necessary to make everything go down in this republican

country; the society and its orator and guests thereupon repaired to the dining apartment, for which one-half of the tent aforesaid had been set apart; and here what a scene awaited us! At elevated seats across one end of the tables, the President, Col. WILDER, took his stand, flanked by the orator of the day and the clergy and the invited guests.

Next to himself on one side was Mr. James; and all overlooking as they came in leisurely and took their seats with unbroken order and decorum, *twelve hundred ladies and gentlemen* to feast on the ample stores provided for such an entertainment as is rarely to be seen under any circumstances, either in *physique* or *personnel*. We are not here pretending to give an account of what was said, so much as of what was done, and of that only *currente calamo*, and in a general way. But one could not fail to be struck with the remarkable taste and singular propriety and decorum with which all was conducted. Where else would it have happened, that not a knife was moved nor a spoon touched, nor a word spoken, until 1200 ladies and gentlemen, all comfortably seated, waited for a blessing to be asked on what they were about to enjoy? Yet so it was here. But though nothing was said, it was very clear to the most transient observer that the ladies were thinking, and with their bright eyes inquiring, as much for a *certain author*, whose intellectual fruits had afforded them so much enjoyment, as for the fruits before them. So expressive was their countenance, of curiosity to see *him*, that one could almost hear them think—*which is Mr. James?* Ah! there he is, next on the right of the President, that youngish-looking man, with a *bon-homme* countenance, the veritable father of such a numerous family, with Agincourt and Attila; the Desultory Man, and the False Heir, and the Black Prince, and the Great Commanders, and the Lord knows how many more sons, *besides the live one that's with him!* Do we then, thought they very plainly, behold the very identical man who has beguiled for us so many hours, with fictions, which with all their variety and fascination, contain *no thread of blue?* Yes, we could read these thoughts in their expressive eyes so plainly, that we were almost tempted to lay our left hand upon his shoulder and say—yes, ladies! *this* is the very Mr. JAMES, on whom your husbands might clap a writ "*ad quod damnum*" for loss of services of wives and daughters, spent in following him over mountain, bog and sea and land in pursuit of adventures at once fictitious and delightful, filled with "thoughts that breathe and words that burn," but such as would not, to use the eloquent expression of a gentleman at the time, stain the purest mind of a mother or a child.

When all were seated, Col. WILDER, in his effective and appropriate way, made some preliminary remarks, and a blessing being eloquently invoked, the game of knife and fork commenced in good earnest; nor was there any want of material for playing it.

The official account of what transpired throughout a day what *was a day* for the friends of agriculture, and the housewifely and other kindred arts, will tell the story of the toasts and speeches—and the honour of being among the invited guests may impose the obligation, as it would be a pleasure, to publish it all if we could find room. But, as the members of Congress say, we "rise for a personal explanation!"

First, however, we should say that Mr. James being justly complimented in a sentiment from the President, in behalf of the Society, responded in feeling and eloquent terms, which, when we see it, shall be copied, if only to convince the readers of this journal that the father of "Arabella Stewart" can tell a heifer from a handsaw, and has an eye and a heart for carrots and cattle as well as for "Chivalry and the Crusades."

Apropos!—here is a sketch in the Boston Journal from which we have now space to extract only what follows. After the one general toast,



Mr. Wilder then said: "It affords me great pleasure to announce to you that we have present with us on this occasion as a guest, a gentleman from our fatherland—one who, in the various fields of literature and science, has adorned the rich fruits of knowledge with the beautiful flowers of romance. I introduce to you G. P. R. James, Esq., the accomplished historian, the brilliant novelist, and a distinguished farmer, and I propose as a sentiment—

*England and the United States—*

Bound together by the ties of a common origin, brought nearer by the wonderful achievements of science, held fast by the golden links of commerce, a still closer connection is maintained through the cords of literature, which, touched by the genius of one country, and vibrating across the ocean, awaken responses in millions of hearts in the other.

Mr. James's response to the compliment from the chair.

The sentiment was received with enthusiastic cheers, which having subsided Mr. James rose to respond. He said he had been introduced as one from the fatherland. He was proud that it was so, and he would say there was no eye in England that would not be proud to own such children as he now saw about him. It was the most magnificent sight he had ever beheld. He came to see the cattle; but he had been shown something more. Such an array of beauty, of oratory, upon the noblest subject! His thanks were due to the Society ten thousand times for the invitation to be present, and also for not telling him of all the entertainment to which he was invited. He had been called a historian. It was true he had read some history, and written some history, and traced upon written page the bloody course of war. But in triumphs such as agriculture accomplishes, we have a nobler kind of warfare, a warfare against all which impedes the march of civilization! The greatest conqueror that ever lived does not deserve so high a crown as the citizen who devotes his powers and talents to the cultivation of the soil.

Between father and child there will be little lifts. The child will sigh to throw off the authority of the parent—especially if the parent be inclined to exercise that authority in a rigid manner. The world looks on the strife with pleasure, and the parent himself at length rejoices in the prosperity of the child, which it would not have attained had it remained under its parent's hand. England is as proud of the progress of her daughter as though her own hands had accomplished it. She feels that it is her blood which has accomplished it. It was the Anglo-Saxon blood which had produced such fruits as he saw around him to-day.

Coming among us from the mother country, he had expected to see much to interest him. But he was greatly disappointed; his imagination had failed altogether. The people of his native land were awfully ignorant of the progress of arts, sciences, and in general and beautiful civilization which the American people have made. Alluding to Agriculture, Mr. James said in many branches of this art you rival us. At the State Fair at Albany, he saw cattle which would compare well with cattle in any part of England; he had seen some beautiful beasts at Dedham, and what he had seen convinced him that the Norfolk County Society was running close upon the heels of any Agricultural Society in the world. With their accustomed New England energy he was confident they would soon catch their rivals. He concluded with the expression of an ardent wish that there might be no strife between the people of the two countries, but that of strife to excel in those things which most contribute to the welfare and happiness of the people at large.

Mr. Wilder then said: It gives me pleasure to introduce to this assembly the editor of the first agricultural paper ever published in the United States, the "American Farmer"—thirty years ago—more recently of the "Farmers'

Library," and now of "the Plough, the Loom, and the Anvil." I propose as a sentiment—

JOHN STEWART SKINNER—the veteran editor of the *Plough, the Loom and the Anvil*. A pioneer and champion in the cause of Agriculture. His works are an honour to him while living, and shall be monuments to his praise when he is gone. Long may it be before we shall be called to write his epitaph.

In reply to which, Mr. Skinner said, and what he did not say he thought, to wit, that on arriving at a hotel recently and being presented with the register for his name and whereabouts, at some loss to know his real locality, if he had any, and claiming for himself something of the ubiquitous character of his labours, he had signed J. S. S.—*U. S. A. L.*, United States At Large, for he had been so poked about, and his local attachments had been made so subservient to the desire of benefiting one great interest pervading the whole country—that he really hardly knew where to hail from—but that now, in such a presence, if called upon to say where he *would like* to dwell, he should say S. M. C. N., State of Massachusetts, County of Norfolk, appealing to Mr. James on his left, and to all other gentlemen of gallantry, to say whether a man with such *Fair* at the table might not go further and fare worse?

Mr. S. then turned and appealed to COL. WILDER, as being himself a two-fold president—President of the Senate of Massachusetts and of that society, and moreover at the head of a committee to say what science could do, and should be made to do for agriculture—to say, how it happened, what peculiarity there was in its soil, that this old county of Norfolk, like the red clay land in Virginia, spoken of by the celebrated Randolph of Roanoke, should be so fertile of Presidents, not only of Presidents of the United States, having given birth to the sire and grandsire of the orator of the day, but that it should have produced, as he believed, *all the Presidents of the old agricultural society of Massachusetts* for so many years? Surely, there must be in its soil some fertile ingredients, in its climate some *buenos ayres*, to give it claim to respect and veneration from all the friends of the *Plough*, and if it would not be thought that he would be "always harping on my daughter," he would add, of "the Loom and the Anvil!"

There were indeed, in his mind, old and grateful associations with Norfolk, and with the town and the name of QUINCY, of which many there might not be aware, for these associations had been planted, and had taken root, before many there present, and especially any of the *ladies*, were born. He had made a visit to his old and valued friend, GORHAM PARSONS—"long time ago," and under the guidance of a man of extensive research and acute observation in agriculture and other things, Mr. POMEROY, he had made a most agreeable visit to the venerable JOSIAH QUINCY, who had presented him to the elder Mr. Adams, else he might not have had it in his power to say, to his children and grand-children, that he had actually taken by the hand a venerable patriot, who, to so many other titles to our reverence, added that of having *nominated Washington as Commander in Chief of the American Armies!* The thought has occurred to every one—how great are the results that sometimes spring from apparently trivial incidents; but who dare calculate the glorious consequences to liberty and to mankind, from placing our destinies under such a guidance in such a crisis? Mr. S. described gratefully his remembrance of the warm, unceremonious and cordial manner in which he had been received by Mr. Quincy, who at once took him by the arm and marched him off to his barn-yard, and there formally introduced him to the famous "*oaks cow*," a notable character in her day and generation, for you must know, ladies and gentlemen, said Mr. S., the patriarch whom I had anticipated the pleasure of meeting to-day, kept a *cow-boarding house* at

that time, or perhaps, said he, in more polite parlance, I should say "*Vaccine Institution*," where he boarded their ladyships for \$40 a year, washing and lodging included (much laughter). Among other obligations conferred on the most useful pursuits, Mr. Quincy had written on the very interesting subject of *soiling cattle* one of the most valuable contributions at this day to be found in the annals of agriculture in any country, and which he, Mr. S., had published nearly thirty years ago. Mr. S. testified, in most emphatic terms, to the great and surpassing excellence of the exhibition in the various departments already adverted to, but with none was he so much captivated, no feature in it did he consider so auspicious of every good result, as that which distinguished it from all others he had ever seen, to wit: the *lady feature*! the presence of the farmers' wives and daughters at that table, to charm by their smiles, and to animate by their approval, their husbands and their brothers to continued exertions to excel in all that can contribute to the comforts of domestic life and the rational pleasures of social existence. What more beautiful proof could any one desire, than such as is here present, to testify the truth of the remarks of distinguished foreigners on our country?—of Mr. Lyell, the great geologist, for instance, who has written of it:—

"One of the first peculiarities that must strike a foreigner in the United States, is the deference paid universally to the sex, without regard to rank or station;" and again says a distinguished writer of another country—Chevalier:—"Not only does the American Mechanic and Farmer relieve, as much as possible, his wife from all severe labour, all disagreeable employments, but there is also, in relation to them, and to women in general, a disposition to oblige, that is unknown among us, even in men who pique themselves upon cultivation of mind and literary taste." Such is the true glory of which all nations may be proud. Finally, Mr. S. said he would condense in the fewest words the sentiment with which their presence inspired him, and in which he was sure he would have the concurrence of all the gentlemen present:—

"RESPECT FOR WOMEN—the true measure of civilization in all ages and countries."

Many gentlemen were prompted by felicitous compliments and allusions to themselves, and to localities, and institutions, with which they were connected, to enliven and instruct the company with thoughts and reflections well conceived, and most happily expressed—of all these we shall hear more in the official account of the proceedings of one of those occasions to be ever remembered by those who benefited of its instructive exhibition, and partook of its entertainments, social and intellectual.

#### THE ESSEX COUNTY AGRICULTURAL FAIR

Followed the day after the one at Dedham. The venerable and highly respected President of it, J. W. PROCTOR (to whom our readers are indebted for the excellent and instructive essay on the culture of onions, in this number), was a guest at Dedham, and with great liberality and discretion, united in the praises bestowed on the excellent arrangements and products of the second Norfolk exhibition—at the same time claiming, very justly and forbearingly, credit for the influence that might be traced to the early example of Essex County, and especially to the edifying bearing and precepts of the ever to be honored by the friends of Agriculture—the late TIMOTHY PICKERING.

In weather there could be no greater contrast than in these two farmers' holidays—that at Dedham was all luminous and bright—the next day at Salem, was dark and drizzly; yet the attendance at the latter, if not so numerous, was as instructive and hearty as at the first—perhaps the more to be remembered, as it showed the earnestness and business qualities of those



who compose the society. The two coming closely together, were enough to prove that New England farmers, when they undertake anything, as such, are made neither of sugar nor salt—but are actuated by a zeal that will not allow them to be choked off by dust, or melted by rain, for we had the two alternately in all their plenitude.

Not the least agreeable part of these exhibitions is the preliminary collations, that sometimes occur at the mansion of some worthy friend of the cause. At Salem, as at Dedham, those who might be regarded as strangers within their gates, as well as officers of the society and others, passed an hour very pleasantly in that way—there at Mr. Gardner's—here at Mr. Silsbee's—honored be the name, were it alone for the father's sake.

Having been regaled with delicious fruits from his own garden, and certain other nice things that fell yet more immediately within the province of the lady of the house, we were conducted under the lead of the estimable President, and *again under the all-inspiring sound of martial music*, to the dinner table, where several hundred gentlemen, members of the society, were feasted on fruits, rivaling the display of it we had witnessed in the hall of exhibition, and with various bounteous provisions of a more substantial sort. At the Fair here, by the by, we saw the best looking of that best of all *pears*—the Sickle—that anywhere fell under our notice.

The President of the Society, aided by the very accomplished Secretary, the Hon. A. W. Dodge, administered with his accustomed judgment and felicity the hospitalities of the day. The occasion was favoured, among other invited guests, with the presence of the Hon. Mr. Cushing, the orator of the day, formerly a distinguished—"a fixed fact"—M. C.; one of a presence and cast of mind to make his mark wherever he goes.

The humble editor of this Journal being himself complimented by the venerable President—*laus est laudari, a laudato viro*—responded by saying that, when two years since he had listened with them at Lynn, to "the great master of American eloquence" (as called by one who is of the highest authority and example in such cases), he little expected to enjoy again so soon the pleasure of meeting them; but happily a just Providence hides from us the good as well as the ill it has in store for us. Mr. S. then recalled old reminiscences of Salem, when taken there, he and his family, a quarter of a century ago, by his friend the late COMMODORE BAINBRIDGE, on a visit to Mr. SPRAGUE, Senator SILSBEE, and the venerable Mr. DERBY, whose absence he was sorry to note, as he knew his zeal for the cause—a zeal signified among other things, within the knowledge of the speaker by the accounts which he had himself published from Mr. Derby, as to the famous OAKS cow that yielded more than fourteen pounds of butter in a week, and a weight of milk, in a few weeks, greater than her own.

Mr. S. then adverted to his correspondence formerly with Mr. Pickering, on the subject of the importation of domestic animals, when he had been entrusted with investment of funds provided for that purpose by the Albemarle Agricultural Society, of Virginia, of which Mr. Madison was then the President. Here he read an extract from a letter he had received from Mr. Pickering, twenty-nine years ago, and published in the "American Farmer," in which he advanced the opinion which all time and experience had confirmed. "As to cattle," said Mr. P., "this last remark of Mr. Marshall induces me still further to think it advisable to search for the best of our own breeds, and from them to raise improved stocks: not to the exclusion of European cattle, though I am far from thinking the large breeds (which seem to be the general object of importers) the most eligible; except for those parts of our country that can furnish *rich grazing lands*.—For the rest, cattle of moderate sizes would unquestionably be the most profitable. The quantity

of milk given by a cow of any breed should not, by any means, be a guide in the selection unless in union with its *quality*. Nine quarts of Mr. Cramps' Sussex cows' milk produced one pound of butter: whereas the best of the Lincolnshire breed (as mentioned by Mr. Young, in his East of England) giving six gallons (forty-eight quarts—enormous), yielded only seven or eight pounds of butter a week, or at the rate of one pound for twenty-one to twenty-four of milk. The Oaks Cow is extraordinary, not for the quantity, but for the quality of her milk. Mr. Quincy to whom she now [Feb. 6, 1821] belongs, informs me that he has often known one pound of butter to be made from five quarts of her milk."

This cow gave forty-four and a half pounds of milk a-day. A good likeness of her may be found in the old "American Farmer," vol. iii, page 179, issued 31st August, 1821.

But, said Mr. S., there was but one point on which he would presume to offer anything in the way of even suggestion to the farmers of Essex, and that was to refer to what he had read within a few days, in English journals, as to the *deodorizing, sanatory and fertilizing power of peat-charcoal*. It was, he said, known to all, that it was only in northern regions, that vegetable matter growing in wet or damp localities could be converted into peat. In more southern latitudes, the putrefactive process supervened to prevent it; but, in the marshes and low-grounds of New England, he apprehended there might exist inexhaustible beds of fertilizing matter, not yet fully developed, the value of which, should it be found on analysis to be of the best kind, was beyond all calculation. But to make it fully available, it needed, according to recent experience in Europe, to be carbonized and compounded with the feculent matter of cities.

He referred to, without venturing to trespass so far on their time as to read, certain passages in a late number of the "Mark Lane Express."\*

He could not close even these desultory remarks, without bearing witness here, to what he had elsewhere and on all occasions testified—the *exemplary form and spirit of the proceedings of the Essex Agricultural Society*. It was clear that no temptation to conciliate popular favour, or to deprecate the displeasure of this man or that, could prevail with them to depart from the strict observance of their rules, or (as some societies do), to award their premiums with a view to public favour, in disregard, sometimes, of the strict rules of truth and justice. This testimony, humble as it was, he felt bound to give, as an editor of a journal that in its devotion to the general cause, knows neither local nor personal attachments, nor the influences of names, Societies or Institutes, however powerful by wealth or numbers. Finally, he said, in view and in admiration of the presence of farmers' wives and daughters, yesterday, at Dedham, he had proposed as an appropriate sentiment—*respect for woman*, as the true test of civilization; but here, to-day, in the presence of the hardy sons of old Essex—sound-headed, warm-hearted, hard-fisted practical farmers, he would present another feeling in the justice of which he had no less confidence.

"MAN—his best relation, that of HUSBAND—his best occupation, that of HUSBANDMAN."

The meeting, after a most feeling, eloquent and just tribute, from JUDGE WHITE to Col. Pickering, first President of the society, and a very appropriate response from Mr. WHITAKER, of Norfolk County, to a compliment from the venerable President to the Norfolk Agricultural Society, adjourned to hear, we doubt not, a very eloquent and profound discourse from Mr. Cushing, the orator of the day.

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\* To be published in our next.

The next best thing for those who *could* not, or who had not an opportunity to *hear*, will be to *read it*; which we hope to do.

The next day found us on our way "bock agen," as Sandy said, when the farmer caught him coming out of his orchard from stealing his apples, and asked him "where he was going?" "*Bock agen*," said Sandy.

Without any necessity for stealing where apples and other good things are so abundant, we may be allowed in conclusion to say, that the man who goes through New England and "bock agen," without picking up something profitable in the way of information, or some kindness to be fondly remembered—

"Oh bear him to some distant shore,  
Some solitary cell,  
Where none but savage monsters roar,  
And love ne'er deigns to dwell."

But shall all this rig-ma-role be brought to a close without a particular word for the

### HORTICULTURAL EXHIBITIONS AND FESTIVALS

Which, at this season of the falling leaf, contribute so much and so happily to bring out the ripe fruits and fair flowers in and around the goodly city of Boston?

The never-failing kindness of friends to whom these attractive and good things are there committed, opened wide and free to us the doors of admission to everything that could charm the eye, in the way of fruits and flowers, and gratify another sense at other places. But how to do justice to all things, in an exhibition of horticultural excellence, where at one exhibition—Col. WILDER presented more than two hundred varieties of pears; and Mr. FRENCH not many less of apples, any plate of which would make a *fruitful* subject for pen or pencil? A lady, indulging in a *jeu de mot*, on a view of Col. W.'s contributions, was heard to whisper to her friend, that sooner than be without one such cultivator of good things, she would rather have a *pear of him*! Mr. HOVEY's offerings, too, were very conspicuous. In truth, it would surprise us were one so well informed to stand like a finger post, ever pointing the way to excellence, yet never going it himself! On the contrary, he may well say to the readers of his excellent Horticultural Magazine, not only do as I *say*, but do as I *do*.—Alas, too happy the instructor in the art of terra-culture who has thus *the terra firma* on which to practice what he preaches. Oh! that we had but a cottage and six acres!

Visitors to the late exhibition in the Agricultural Hall at Boston had, at their very entrance, an inkling of what was coming, in being there met by a basket of *ninety-six perfect and luscious-looking Bartlett pears*, the produce of a single tree, *only two and a half years old*! It was, however, observed in our hearing by a bystander, to be an example of bad economy, to let it ripen so much fruit at so early an age; precocious bearing having, as he said, the same effect on the constitution of trees, that it is seen to have on other things. We said nothing, but took the hint, not knowing but we might "prent it too" in the mothers' department of "The Plough, the Loom and the Anvil." Be it, however, remembered, good reader, that it is only where various and prosperous industry in *other pursuits* near the plough, ensure fifty cents a dozen, that you may expect to see such pears as a common thing. Even blackberries were there exhibited, so large and juicy, improved by the arts which that society was formed to promote, that you would hardly recognize in it the *hybrid* kin of the poor seedy straggler that finds shelter and support scarcely noticed even by the birds, in the corners of our old rotten worm fences. Well, even as the maker of such fences keeps his best rail for a rider over all, so it would



seem have we reserved for the last, a subject which, to be justly appreciated, must be seen, as we have seen, now repeatedly, these displays of fruit and flowers, the growth of barren New England, various and magnificent beyond all our poor powers to describe. Ah! have not these Yankees abundant cause to bless the day, and the hour, when the good old Republicans of the South enacted the sound but too fluctuating policy, which, fitful and uncertain as it has been, yet took root enough to diversify the pursuits of northern industry, placing the consumer by the side of the producer, enabling him to avoid the cost of transportation to distant and uncertain markets, and to return to the bosom of the land the refuse of its products! And yet so poisoned sometimes, and perverse is public opinion, that for bringing these things to their notice, it is ten to one but, on reading these very hasty remarks, some southern friend will take his pen and send us the duplicate of the following argumentative epistle just received—"Free trade being a maxim with me ever since I was born, you will please strike my name from the list of your subscribers."

Having brought the manufacturer in New England to "take his place by the side of the agriculturist," her sons, who before that could one hold, one drive, and a third one steady the plough; find now a thousand avenues open to their industry; and their daughters who before remained at home as sterile as their own soil, or were driven to the remote frontiers to lead and bear the burdens of semi-savage life, now nestle under the wings of their mothers, until barely old enough to become mothers themselves, when they marry and soon hatch out new and happy broods to play and bask in the sunshine of domestic and prosperous industry—Hence it is that instead of falling farther and farther in the wake of North Carolina, as she did until 1820, we see Massachusetts coming out at this census 200,000 ahead of her, with a million of thriving people!

Alas! how long will experience, that best teacher of individuals, be *lost upon us as a nation?*

#### ON THE CULTIVATION OF ONIONS.

ON a visit lately to New England, we were overtaken there by a letter from a gentleman of our own name, asking to be supplied with information on the culture of the onion crop.

We considered it a lucky chance for the writer, that his inquiries should have reached us exactly at the point where they could be best answered, for we remembered having read the article from Mr. Proctor, referred to in the following letter, but not having it at hand at the moment, we availed ourselves of the opportunity to place the letter in the hands of Mr. Proctor himself; of whom we may say here behind his back, and the more especially as we are not sure that he is a reader of this journal; that the Union could supply no better authority than he, on any point upon which he would undertake to speak from personal experience or observation.

And this we say in reference to every quality that should inspire respect and confidence.

To make assurance doubly sure, and to encourage among our readers the practice of asking for information on any particular subject where it is needed, we shall publish also, on some future occasion, the essay to which Mr. Proctor (the highly-respected President of the Essex Agricultural Society) refers.

Under some management of the Post Office, it rarely happens that printed matter and letters mailed at the same time reach their destination simultaneously, as they should do, for there is, we apprehend, no law that authorizes the discrimination. Thus it has happened that we have not received the essay to which our respected correspondent refers. It will probably come

along in the usual course of things, but if not, we have it in a copy of the "Transactions of the Agricultural Societies of Massachusetts," for which we are indebted, as for other marks of kind attention, and for which we are glad to make grateful acknowledgments, to Mr. Calhoun, Secretary of the Commonwealth.

DANVERS, Sept. 27th, 1850.

J. S. SKINNER, Esq.

DEAR SIR—In reply to your friend's inquiry "as to the best mode of raising onions," I do not know that it will be in my power to add much of value to the hints contained in an essay on this subject published in our Transactions for the year 1847, and republished in several of the Journals of that year.

My attention having been repeatedly called to the subject and having seen much of this cultivation, I will answer his inquiries as far as I am able.

1st. "How to prepare the ground?"

Select a good soil, that will produce fair crops of other vegetables. If in grass, let the ploughing be at least eight inches deep. Let the first crop be Indian corn, with a full dressing of manure. Let there be particular care that no weeds grow or spread their seed upon the land. Let the second crop be carrots, with a full supply of manure. Let the land be ploughed in the autumn, and thoroughly stirred up. Let it be well manured, and in the spring let it be again ploughed, and a coating of fine manure intermingled with its surface, which is to be thoroughly cleaned of all obstructions in the way of the seed-sowing machine, and then it will be in a condition for the reception of the seed of the onions. This is to be sown in rows 14 inches apart and just thick enough to fill the rows with the plants when grown. Special care must be taken that no weeds grow among the plants, or between the rows. Nothing can be more detrimental than the growth of weeds to onions.

2d. "When to commence, when to plant them?"

As early in the spring as the ground will admit of the seed being sown. It is the first work in the field by our cultivators. Every preparatory movement is made in the autumn to insert the seed early in the spring. No harm comes to the plant from cold weather after they come up. Consequently nothing is lost by early planting, say the last of March, or the first of April.

3d. "How and when to gather them?"

When the tops begin to wither and fall, then the plants should be pulled and thrown in rows, about eight rows in one, and having been exposed to the sun about eight days, they will then be in a condition to be taken to the barn. Here they are relieved of all refuse material, and bunched or barrelled according to the market contemplated for their use.

4th. "The produce per acre?"

With proper care, without any of the blights to which the crop is sometimes exposed, the ordinary produce is from 300 to 500 bushels to the acre. I have seen fields the present season that yielded 600 bushels to the acre. This was considered a very fine crop. 500 bushels is a large crop. I have thus given answers to the direct inquiries of your correspondent. I may add, that the onion is the most valuable vegetable product of our town, more than 100,000 bushels having been raised annually for several years, and commanding an average price of 40 cents per bushel. If asked what are the most prominent things to be regarded in the culture of the onion, I should say—the kind of seed to be selected; the proper preparation and pulverization of the soil; the quantity and kind of manure to be applied; the keeping of the land free of weeds. When these things are properly done, there is very little hazard about this crop.

In 1849, some of our most careful cultivators lost their crops almost entire—and this without being able to explain the reason thereof. On the same lands very fair crops grew the present year. The best crop I have seen the present season grew on a piece of land that was sown with oats, immediately after the onions were gathered the last season; which oats were turned under late in the autumn, just before the ground froze up. In the spring, the surface was pulverized by the use of the cultivator, and between three and four loads of manure from the pig-pens applied to the surface. The onions when growing thus extended their fibres among the decaying oats beneath, and were invigorated by the same. The proprietor, who is one of our most intelligent cultivators, thinks the crop the best he ever raised; and that it was greatly benefitted by the green crop turned in the land. Having been fully supplied for several years with *stable manure, leached ashes, and muscle beds*, as he remarked, it needed a new support, and this it found in the vegetable crop turned in. He is so well pleased with the experiment, that he has sown oats on nearly all his onion fields the present year.

Herewith I forward a copy of the essay mentioned at the beginning.

I am, dear sir, very truly yours,

J. W. PROCTOR.

## EXAMINATION OF THE COMMERCIAL VALUE OF HUMAN EXCRETÆ AND PEAT CHARCOAL MANURE.

By J. C. NESBIT, Esq., F. G. S., F. C. S., ETC.

PUBLIC attention has, within these few years, been strongly directed to the necessity of preserving and making use of those fæcal matters which, though highly valuable as manure, have hitherto been allowed, from various causes, to run to waste.

Though no one has denied the value of human excretæ as manure, yet, as far as I am aware, no attempt has yet been made to determine by analysis their exact market value, and thus to compare them with other manures.

The subject was thought of sufficient importance to warrant our undertaking, in the laboratory, an investigation of the subject.

By weighing the excretions of one person for some time, it was found that the average weight of solid fæces was seven to eight ounces avoirdupois, and the urine three and a half pounds per diem. The weight of the latter will of course vary with the quantity of water drunk, the state of the air, &c.; but the solid materials given out in it daily will be nearly the same. The annual amounts will, therefore, be nearly one and a half cwt. solid excrement, and eleven cwt. of urine.

The following tables show the composition of these substances, as determined by Messrs. Bailey and E. Cottingham:—

## COMPOSITION OF THE SOLID AND LIQUID EXCREMENTS OF MAN IN THE NATURAL STATE.

	Solid excrements.		Urine.	
	Per cent.	Per ton. lbs.	Per cent.	Per ton. lbs.
Moisture . . . .	73.25	1641	97.09	2175
Nitrogen . . . .	1.94	43	.79	18
Organic matter . . . .	22.01	493	1.30	29
Inorganic matter . . . .	2.80	63	.82	18
	100.00	2240	100.00	2240

## COMPOSITION OF DRIED HUMAN EXCREMENTS.

	Solid excrements.		Urine.	
	Per cent.	Per ton. lbs.	Per cent.	Per ton. lbs.
Nitrogen . . . .	7.25	163	27.14	607
Organic matter . . . .	82.29	1843	44.69	1002
Inorganic matter . . . .	10.46	234	27.14	631
	100.00	2240	100.00	2240

## COMPOSITION OF THE EXCREMENTS OF ONE MAN FOR ONE YEAR, AT THE RATE OF ONE AND A HALF CWT. OF SOLID FÆCES, AND ELEVEN CWT. OF URINE, PER ANNUM.

	Natural.		Dry.	
	Solid excrements. lbs.	Urine. lbs.	Solid excrements. lbs.	Urine. lbs.
Moisture . . . .	123.0	1196.3		
Nitrogen . . . .	3.3	9.9	3.3	9.9
Organic matter . . . .	37.0	15.9	4.7	15.9
Inorganic matter . . . .	4.7	9.9	37.0	9.9
	168.0	1232.0	45.0	35.7



From the previous table, it will be seen that, exclusive of water, we have 45 lbs. of dry matter in the solid fæces, and 35.7 lbs. of dry matter in the urine given out annually. The following table shows the composition of the mixed materials dry:—

## COMPOSITION OF THE MIXED EXCRETÆ DRY.

	In annual amount of 80.8 lbs.		Per cent.	
	lbs.	lbs.	lbs.	lbs.
Nitrogen equal to <i>Ammonia</i>	16.	13.2	19.8	16.33
Organic matter	.	53.0		65.61
Inorganic matter	.	14.6		18.06
containing <i>Phosphoric acid</i>	2.67		3.3	
		80.8		100.00

From a comparison with other manures in the market, it would appear that the value of the 80.8 lbs. of dry solid matter is about 10s. In order to compare it properly with guano and other manures, we must see its composition when it contains twelve per cent. of moisture, the same as ordinary guano.

## COMPOSITION OF MIXED HUMAN EXCREMENTS WITH TWELVE PER CENT. OF MOISTURE.

Nitrogen (equal to 17.42 per cent. of <i>ammonia</i> )	14.37
Organic matter	57.74
Inorganic matter (containing 2.9 per cent. of <i>phosphoric acid</i> )	15.89
Moisture	12.00
	100.00

In the subjoined table, the dried excretæ are compared with rapecake and Peruvian guano. The ammonia in the guano is calculated at fourteen per cent., which is about the average:—

## COMPARISON OF DRIED HUMAN EXCRETÆ WITH RAPECAKE AND GUANO.

	Rapecake.		Guano.		Mixed human excretæ.	
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Moisture	.	195.8	.	268.8	.	269.0
Nitrogen	.	115.4	.	258.6	.	322.0
equal to <i>ammonia</i>	140.0		313.6		30.9	
Organic matter	.	1654.2	.	938.6	.	1293.0
Inorganic matter	.	274.6	.	774.0	.	356.0
containing <i>phosphoric acid</i>	43.7		224.0		64.9	
		2240.0		2240.0		2240.0

From the previous table, it will be seen that the dried excretæ are preferable to the guano and rapecake as far as concerns the ammonia, and superior to the rapecake and inferior to the guano as respects the phosphoric acid. The latter could easily be supplied by bones or coprolites.

Many methods have been proposed for getting rid of the excess of moisture from faecal matter. Among others, Mr. Rogers proposes to use peat charcoal, which not only absorbs water, but also possesses powerful deodorizing properties. Mr. Rogers, by means of a proper machine, mixes two parts of peat charcoal with one of excretæ, and the resulting material is at once ready for use or carriage.

The following is an analysis (by my assistant, Mr. Bailey, F. C. S.) of one of the mixtures made by Mr. Rogers, in his experiments at the Mechanics' Institute, Southampton-buildings, in October last:—

## PEAT CHARCOAL MANURE.

	Per cent.		Per ton.	
	lbs.	lbs.	lbs.	lbs.
Moisture . . . . .		30.66		687
Nitrogen . . . . .		4.89		109
equal to <i>ammonia</i> . . . . .	5.92			
Organic matter and charcoal . . . . .		55.23		1237
Inorganic matter . . . . .				207
containing <i>phosphoric acid</i> . . . . .	0.63		14	

In order to compare the peat charcoal manure with guano, we will show its composition with twelve per cent. of moisture:—

	Per cent.		Per ton.	
	lbs.	lbs.	lbs.	lbs.
Moisture . . . . .		12.00		269
Nitrogen . . . . .		6.20		139
equal to <i>ammonia</i> . . . . .	7.5		167	
Organic matter and charcoal . . . . .		70.09		1570
Inorganic matter . . . . .		11.71		262
containing <i>phosphoric acid</i> . . . . .	0.8		17	
		100.00		2240

The peat charcoal manure, with only twelve per cent. of moisture, and assisted with some phosphates, would, therefore, be more valuable than rape-cake, and nearly half the value of guano.

*Agricultural and Scientific School, KENNINGTON, June 20th, 1850.*

## FARMERS' SONS AND MEDICAL SCHOOLS.

"Oh! happy, if he knew his happy state,  
The swain who, free from business and debate,  
Receives his easy food from nature's hand,  
And just returns of cultivated land."

"The causes and the signs shall next be told,  
Of every sickness that infects the fold."—VIRG. GEORG., III.

THE kindness with which you, Mr. Editor, received my remarks on pisciculture, encourages me to say a few words to the numerous readers of your valuable journal on another subject. It is (to quote from yourself) on "What Farmers' Sons should learn at School."

Under this title, you have advocated a knowledge of botanical terms and of general botany. I propose presenting a few reasons why farmers' sons should attend at least one course of lectures in a *medical school*, before they begin the responsible and arduous duties of farming on their own responsibility.

First, then, the knowledge there obtained is in every way useful to the intelligent farmer. To prove this, I will, in a few words, refer to the subjects taught and illustrated in a medical school, and point out some of their connections with the duties of the farmer.

1. *Chemistry*.—This most important branch is carefully taught, in all medical schools, in its most elementary parts. The composition of the atmosphere, with the changes which it undergoes from the mixture of various

gases—the product of decaying mineral and vegetable matters. The saturating point. Clouds—their formation. Water—its composition and various properties. How wonderful an agent it is in carrying nutrition to the radicles of plants. The different kinds of water—well, spring, river, rain, sea, hard, soft, &c. &c. The division of all matter into solid, fluid, and gaseous. The composition of the solid particles of the earth, and particularly the “upper crust.” The connection between this and the composition of the various grains, grasses, straw, and fruit. How, in fact, the growth of the whole vegetable kingdom is merely a chemical process, by which the elements which are found in the atmosphere, water, and the soil, are transferred to, and transformed into, the waving grain of the harvest field, the rich farina of the potato crop, or the luscious juice of the apple, pear, quince, plum, or cherry.

But I need not dwell upon the many benefits, to the farmer-boy and the farmer-man, to be derived from this peculiarly farmer science. You doubtless recommended to him to read Liebig on Agricultural Chemistry. I say that no farmer can understand that, or any of Liebig's writings, without a *pretty good* previous knowledge of chemistry,\* and this can be obtained in any medical school.

2. *Anatomy*.—Oh! some will say, what has a farmer to do with anatomy? I answer, very much. He is the father of his flocks, and many of the accidents, very simple in themselves, which now annually destroy a considerable per centage of his flocks, might be remedied, had the farmer only a little anatomical knowledge. Why, I have known a blacksmith (and he, by the by, from information picked up among his customers, is often the learned man of a country village), I have known a blacksmith save the life of a lamb which had been without an *anus*, by an operation which is one of some importance in surgery. Another saved the lives of several cows, which were bursting from over-feeding on new grass in the spring, by a most simple but important operation.

On the other hand, I have known many fine animals destroyed from having merely a leg broke, which might as easily have been cured as a like accident in the human subject. Great loss is annually suffered in this country, in the single article of the horse alone, from a want of a little information. Operations for hernia, castration, hydrocele, deformities, tumours, &c., might be safely performed by the intelligent farmer himself, instead of depending upon ignorant itinerant pretenders, whose skill resides chiefly in their unblushing effrontery.

3. *Surgery*.—This great branch of a course of medical lectures teaches the nature and treatment of just such diseases as the farmer comes in contact with. It will be remembered that the anatomy of the human subject is the anatomy of all other animals, and may consequently be applied with the greatest facility to the structure of all domestic animals. So also of surgery. The only difference is—and that is in the farmer's favour—that *human surgery* is a little more complex and scientific than that which would be necessary in the treatment of surgical diseases in animals. The farmer now does a number of operations mechanically, without understanding either the true character of the disease operated for, or the structure of the parts operated upon. I knew a very intelligent farmer, now quite wealthy, who could not kill a pig—did not know where to cut for the jugular and carotid!!!

\* This is but too true, and hence Petzhold delivered his course, as he said, to enable his pupils to understand Liebig and other elaborate works. We have republished Petzhold, and can sell it (having the stereotyped plates) for not exceeding fifty cents a copy! Yet nobody asks for it. The fact is, we want *provisions to be made for appropriate instruction in the schools!* But farmers have not the spirit and the union to demand that.—*Ed. P. L. & A.*



4. Even *Obstetrics* should be understood by the farmer, at least as far as the mechanism of labour is concerned. I remember very well, when a boy, assisting a cow, under the direction of the farmer's wife, in the birth of a calf. This cow had always difficult labours, and was the best of twenty-one. She lived to a great age, and was finally choaked to death by a nubbin of corn, her teeth having become too bad to masticate such hard food. Even this accident might have been remedied, had any one used the probang, or some other instrument, to remove the nubbin from the pharynx.

5. *Materia Medica*.—Lectures on this branch teach the student not only the botanical terms used to describe plants, but their classification, structure, medical properties, and the doses proper for the sick human patient. It teaches their composition also, with the varied properties of root, bark, stem, leaf, flower, fruit, pod, bud, &c. &c.

6thly and lastly. The lecturer on practice speaks of the various diseases to which men are liable, with the use of medicines, whether mineral or vegetable, for their cure. In this way, the farmer will become familiar with many diseases which are common to man and animals. Nay, I see no objections to his practicing in his own family, especially in simple cases, until a physician can be obtained. He must do so, or not unfrequently lose a son, a daughter, or a "hand," for want of a little timely attention. I knew a farmer who well nigh lost a favourite son, from the bleeding of one of the arteries of his leg, cut while mowing with the scythe. Unacquainted with the circulation of the blood, he did not know that tying a handkerchief tightly *above* the cut would stop the blood.

Secondly, Mr. Editor, I will add a few words as to the *practicability* of the matter. All farmers' sons, or many of them, go to school during the winter season; indeed, they get their education by going during at least three months of each year, in the winter, to a neighbouring school. Now almost all the States have medical schools established in them, whose sessions are in the winter or in the spring seasons. It would be but little sacrifice or expense, for a farmer to send his sons and boys to such a school for *one season*.

The extra expense would, I feel persuaded, be more than met by the good which would result during the first year afterwards. Farmers must remember that there are two kinds of work—hand-work and head-work—that he is a poor creature whose "head will not save his heels." In other words, they should strive to cultivate the mind, and fill it with such knowledge as will be useful in future years. They would in this way *enrich* their sons most effectually, increase their sources of happiness, and add one great means of keeping them from light and profitless company. Give them a taste for reading and experimenting in the natural sciences, and they are safe. Every rock, tree, and animal then becomes a subject of study and observation; the source of exquisite pleasure to the farmer student, and the means of advancing the temporal interests of the wise and full-grown farmer. Agriculture will become a science, and the tiller of the soil the most respected, as he is now the most independent, of all the various classes of society.

My friend, John Delafield, Esq., of Ontario Co., N. Y., advocates an extensive system of scientific instruction, which embraces medicine as a part; but I fear he expects too much. Farmers have no time for all these things. They cannot be at once chemists, physicians, botanists, mineralogists, and geologists, but they may very easily attend *one* course of lectures delivered in a medical college.

As far as the writer has observed, physicians who unite the farmer with the professional man, are among the most intelligent and successful of those engaged in agricultural pursuits.

JAMES BRYAN, M. D.  
*Philadelphia.*

## COVER YOUR BARN-YARDS.

THE question has been raised *how far* a judicious man would haul, if it were *given to him*, barn-yard manure, accumulated under the usual circumstances. What are they? Made only from the offal of corn and wheat and other grain in open yards, exposed to be drenched and to have the life washed out of it not only with every rain, but with the water falling from the unspouted roofs of the barn and stables.

The too common error of farmers is to value manure by the bulk rather than by the *quality*. One might as well value a woman or a man in the same way. No, it's the spirit, the essence, that gives value to the one and the other. For some things, frequent washing is to be commended, but *not for manure*.

Says an English writer :—

"Who, with an eye in his head, and gifted with a particle of the reasoning faculties generally vouchsafed by a kind Providence, can help lamenting the wasteful mismanagement of manure on most farms, and *more particularly on those of farmers who all their lives have been brought up to nothing else but agricultural employment, and who follow undeviatingly the practice of their fathers?* What was more common than to see what ought to be manure exposed on an eminence to the alternate heats of summer, the blustering winds, the drenching rain and snow of winter—its essence wasting its fragrance in a puddling horse-pond, or working its devious course to a running stream? Does this not require reform? And what reform more appropriate than by the erection of a roof to protect the manure from the vicissitudes of the weather—sinking tanks to receive the liquid from the stables, cowhouses, and piggeries, and at least weekly pumping it on the mass which readily absorbs it—causing no undue fermentation, and helping to consolidate the whole as it daily accumulates by the continual addition of strata, thus converted into fertilizing substances? Such is the common practice at Gilgarran, not long since noticed as the most sterile spot in the county, but now producing crops equal to any in it.

"When I first commenced roofing my middens barn-yards, I had to contend with the jeers of my neighbours, and the deep-rooted prejudices of my own people, who foretold an absolute failure and wasteful expenditure. But what say they now? That the manure when cut into has the appearance and consistency of the blackest peat moss, and that the improvement in it the very first year paid for all the expense: and so has it been as respects my stackyard, which has for several years been permanently roofed. Great was the discouragement offered to me, whilst this operation was in progress; but how stands the case now? It is visited from far and near by our most distinguished agriculturists, and their praise of it and my middens is unqualified."

## GRASSES.

A MUCH-RESPECTED subscriber in the South intimated a wish to have something said on the subject of grasses. Hence, we have caused the two engravings to be made which appear in this number.

Fig. 1 is of the sweet-scented grass, which some suppose imparts to the Philadelphia butter its unequalled richness and high flavour. Fig. 2 is of the orchard grass, so commonly called.

We have only room to promise, that in due time the request in this, as in all other cases, shall have our earnest attention. We wish to encourage the habit of calling for light on subjects, where it is supposed to be needed; as far as we have or can command, the means of affording the desired information.

Much more is yet to be said about grasses, and many more kinds to be illustrated; for, although such may be familiar to older readers, our wish is to address ourselves to and to benefit the young and the inexperienced. Without pretending to much knowledge ourselves, our resources are very extensive, and, after all, we must depend upon each other for light and knowledge, which,

like the radiation of heat, must be reflected from one mind to another, and very often from inferior to superior ones.

*Botanical or specific character of distinction.*—Panicle spiked, ovate oblong, flowers longer than their awns, on short partial stalks.

The *Blossom* of this grass is double, the outer one is entirely different from that of any other of the grasses; its outside is covered nearly to the top with stiff brown hairs, lying flat. *Stem* with two or three short hairs, and shining joints. Native of Britain.

*Dissections.*—1. Calyx or husks; 2. Stamens and anthers, or male parts of the flower or corolla, with the awn and feathered stigma; 3. Feathered stigma on the germ of the seed; 4. Corolla husks, the natural size.

On a brown sandy loam, the produce of this grass, in the beginning of April, is—

	Per acre.
	lbs.
Green food, or grass . . . . .	3488
Nutritive matter . . . . .	95
At the season of flowering, the produce of grass is . . . . .	2827
When made into hay, the produce weighs . . . . .	2103
At the time the seed is ripe, the produce is—green food . . . . .	6125
Or when made into hay, weighs . . . . .	1837
The weight of nutritive matter afforded by this crop is . . . . .	311

The weight of nutritive matter which is lost, therefore, by taking the crop when the grass is in flower, exceeds one-half of its value, or 188 lbs. per acre.

The proportional value which the grass, at the time the seed is ripe, bears to that of the time of flowering, is as 13 to 4.

The proportional value which the grass of the lattermath bears to that of the seed crop, is nearly as 13 to 9; and the proportional value or nourishment contained in the autumn grass exceeds that of the first grass of the spring, as 9 to 7.

The nutritive matter of this grass consists of the following vegetable principles in every 100 parts of the soluble extract: viz.—

Mucilage or starch . . . . .	86
Sugar, or saccharine matter . . . . .	8
Bitter extractive, or tonic matter . . . . .	6
	<hr/>
	100

The first growth of the herbage in spring affords—

Mucilage or starch . . . . .	80
Sugar . . . . .	2
Tonic, or bitter extractive matter . . . . .	18
	<hr/>
	100

Fig. 1. *Anthoxanthum Odoratum*, or sweet-scented Vernal Grass.





The tonic, or bitter extractive matter, is here in a larger proportion than in the summer produce, or in that containing the flowering or seed culms, and the quantity of sugar is less. This grass gives the new-mown hay that delightful odour which is peculiar to it. It constitutes a portion of the herbage on pastures, on almost every kind of soil, although it attains to perfection on those only that are deep and moist. It thrives best, and is most productive and permanent when combined with other species of grasses, and it is therefore a true permanent pasture grass. When sown by itself, the sweet-scented vernal is not a profitable grass. Mr. Grant, of Leighton, laid down a field of considerable extent with this grass, and another adjoining field with the meadow foxtail, *Alopecurus Pratensis*. A portion of clover seed was sown in each case: white clover with the former, and red clover with the latter grass. Both fields were open at the same time to sheep. The stock gave a decided preference to the meadow foxtail. We saw this trial conducted on a large scale, and with every impartiality, by Mr. Grant, and the conclusions agreed with the results of our own trials—that the sweet-scented vernal is a useful ingredient in pastures on a deep moist soil, but is unfit to be cultivated by itself.

Fig. 2. *Dactylis glomerata*, or Round-panicked Cock's foot Grass.



The superior quantity of nutritive matter contained in the crop at the season of the seed being ripe, instead of at the time of flowering (generally supposed to be the period when grasses contain the most nourishment), is so far a wise provision of bountiful Providence, inasmuch that from the circumstances of this grass flowering in April and May its crop could not be taken at that period without sacrificing the greater number of different grasses not then in a state of inflorescence; as it is, when the seed of the sweet-scented vernal is ripe, the greater number of the superior pasture grasses are in various stages of inflorescence. The season of coming into flower is generally about the middle of April, and the seed is ripe in May, or early in June. The seed is furnished with an awn, which ejects it from the husks almost immediately that it is perfected, and this seed is therefore rarely found in what are termed hay seeds, being shed long before the ordinary period of hay-harvest.

*Specific character of distinction.*—Panicle distinctly branched, flowers in dense globular tufts, directed to one side, corolla somewhat awned, five-ribbed, taper-pointed. Native of Britain.

*Dissections.*—Fig. 1. Spikelet magnified; 2. Floret magnified; 1. Nectary natural size.

On a rich sandy loam, the produce of this grass, about the middle of April, is—

	Per acre.
	lbs.
Herbage, or green food . . .	10209
Nutritive matter ditto . . .	1189
At the time of flowering, the produce is, Grass, or green food . . .	27905
Or, Hay . . .	11859
Nutritive matter ditto . . .	1089
At the time the seed is ripe, the produce of grass is . . .	26544
Or when made into hay . . .	13272
Nutritive matter ditto . . .	1451

The weight of nutritive matter in which

the crop at the time the seed is ripe exceeds that of the flowering crop, is as seven of five nearly.

The seed of cock's-foot is light, and the culms are comparatively succulent at this period of growth, which will account for the nutritive matter being then in a larger proportion. It should be observed, also, that the crop at the period of flowering is more succulent, and consequently more grateful to stock than the former, which circumstance counterbalances the value of the extra quantity of nutritive matter, and decides in favour of the period of flowering as the most proper to take the crop for hay. The fact of nutritive matter being abundant in the seed crop will not be lost sight of in disposing of the culm, by those who save the seed of the cock's-foot.

The produce of lattermath is—

	Per acre.
	lbs.
Herbage . . . . .	11910
Nutritive matter in ditto . . . . .	281

The proportional value which lattermath of cock's foot grass bears to that at the time of flowering, varies from five to three, and seven to two, according to the circumstances of soil and season.

This is one of the most valuable of the grasses. It springs very quickly after being cropped, and continues productive, with little interruption, throughout the season. Like every other of the more valuable pasture grasses, it will not when sown by itself form a close sward, but becomes tufty. When sown in certain proportions according to the soil, in combination with others, it is a very profitable plant. It requires to be depastured closely, under every circumstance, to reap the full advantage of its great merits. In the pastures most celebrated for fattening and keeping the largest quantity of stock in Devonshire, Lincolnshire, and in the vale of Aylesbury, which we minutely and carefully examined, we found cock's-foot in every instance to constitute a portion of the herbage. In the most skillfully managed of these pastures, the foliage or herbage of the cock's-foot was to be distinguished only by an experienced eye from that of the *Alopecurus pratensis*, *Poa pratensis*, *Poa trivialis*, *Lolium perenne*, *Cynosurus cristatus* and other fine-leaved grasses; a fact which proves the futility of the objections that have been raised without due consideration against cock's-foot, as to its being a coarse grass. It wants only to be combined with others in due proportion to the nature of the soil, and judiciously depastured, to render it equal if not superior in value to any of the superior or essential pasture grasses.

The cock's-foot flowers from June till August, ripens its seed in July, or if the herbage of spring is eaten down to a late period, the seed does not ripen until August, or even the beginning of September. The late Mr. Rogers Parker, of Munden, Herts, was the first who collected the seed in any considerable bulk for farm practice, which was afterwards extended and brought into more general notice by Mr. Coke, of Norfolk.

*Varieties of Barley.*—The different varieties of Barley comprise the old common Barley, Chevalier, Brewers' Delight, Oakley, American, Nottingham Longear, Berkshire, &c. The Chevalier decidedly ranks first for malting purposes, and is most eagerly sought after by the brewer in every district. The objections urged against it are, that it does not produce so much per acre, as some of the other varieties. I am, however, inclined to think that, under proper cultivation and with occasional change of seed, there are few sorts that can be compared with it. I will give the result of some experiments carefully tried between 1836 and 1845:—

	In 1836.	CORN.		STRAW.		
		Bush.	pecks.	Tons.	cwt.	lbs.
Chevalier	-	-	42 0	0	14	1
Common Barley	-	-	42 0	0	15	6
American	-	-	40 0	0	14	4
1841						
Brewers' Delight	-	-	57 1	1	6	6
Berkshire	-	-	56 2	1	6	2
Chevalier	-	-	60 1	1	7	6
Nottingham	-	-	56 3	1	8	0
1845						
Brewers' Delight	-	-	52 0			
Chevalier	-	-	48 3			

For "The Plough, the Loom, and the Anvil."

### HORTICULTURAL MEMORANDA.

THE past season has been peculiarly favourable for garden produce; every crop has been of the best quality and abundant. The markets have been well supplied and prices very generally good.

Those who take a pleasure and interest in the kitchen garden will have all their celery fully earthed up, that it may be well blanched before vegetation ceases. As soon as frost appears, secure all the beets for winter use, by putting them into a dry cellar and covered lightly with earth, or dig a hole about one foot deep, into a dry warm piece of ground, of sufficient capacity to contain the roots after they have been allowed to dry. Cover them lightly with straw and a few inches of soil, leaving a hole at the top to allow the moisture to pass off for two weeks, when a foot or eighteen inches of earth should cover the whole pit in a rounding manner, to throw off the rain and see that you finish in such a manner that no water will stand round your root-hills during winter. This method can be successfully adopted with all roots, taking care to avoid cutting or bruising any of the tubes.

Do not delay the boxing of cabbage, lettuce and cauliflower plants; the earlier it is done in noon the better, that the young plants may take hold of the soil before the severe weather approaches. Use very rich light soil, planting the plants from one to two inches apart. When they have taken root, sprinkle a few dry leaves among them. Do not cover your boxes or cold-frames at night till the frost is very severe. On the other hand, where lettuce have been planted into frames for winter use, cover them carefully every night with boards and mats, using glass sash whenever it can be obtained.

Where new plantations of asparagus or rhubarb are required, it is preferable to do it now.

Of these two vegetables, the quality of the crop depends entirely upon the richness of the soil. The farmer requires a light, deep, dry, warm soil, of a sandy, loamy texture; the latter a deep rich moist (but not wet) soil. Cover the beds with manure during winter, and dig it in amongst the roots in the spring. *Observe, the soil cannot be too rich or too deep.*

Where planting of deciduous trees or shrubs is intended to be done the coming spring, do it now, if practicable, upon all soils of a dry nature. At this period of the year, there is more time to do the business well. We do again and again urge upon every one who rents or owns, or has a yard of ground, to plant fruit trees and grapes. Adhere to the best native sorts; they are generally more profitable than those of foreign origin.

During the leisure hours of winter, some of your readers may wish to try the operation of root-grafting the apple. We have for the past five winters tried our hand with a few thousand on some occasions very successfully, when they have grown eighteen inches or two feet the first season. The first thing to procure is a quantity of fresh, sound roots, preferring those of two or three years old; place them in the cellar and cover them with earth, till January or February; next select, buy or beg the scions of the past seasons, wood from trees or sources that can be depended upon. Cut them in lengths of six inches, and place them in earth by the roots, or buried in the open air, leaving about one inch only above ground.

Any period during winter, when time permits, take the roots, and cut as many of them as you will use in a day into lengths of three inches, and from the size of a quill to that of your finger. Cut your scions or grafts also into the same lengths, placing the roots on a table to the left hand and the scions to the right; have some woollen or cotton thread, or any other thready material, cut into lengths of four to six inches, then proceed by adopting the method of *whip* or *tongue* grafting, as it is called, from the manner of cutting both the root and scion in a sloping direction on one of their sides, so that when brought together they exactly fit, and thus may be tied together. In former times, this species of grafting was performed without a slit or tongue, and in that case, the term of *whip* grafting was more applicable; subsequently the slit or tongue has been added, which has given rise to the other term. The scion and root being cut off obliquely at corresponding angles, as near as the operator can judge, make a slit nearly in the centre of the sloping face of the root downwards, and a corresponding tongue in the scion upwards. This is called *tonguing*; the tongue or wedge-like process forming the upper part of the sloping face of the scion is then inserted downwards in the cleft of the root—the inner barks of both being brought closely to unite on one side so as not to be displaced by tying, which should be done immediately with the material recommended above, brought in a neat manner several times round the union. When finished, place the grafted roots neatly in boxes of soil, covered to an eye from the top all properly named. As early as



spring will admit, prepare a piece of fine, rich ground, wherein plant your grafts, leaving only one or two eyes above ground, in rows one foot apart and three inches from plant to plant; press the soil firm about the roots. Keep clear of weeds, and cultivate well, to ensure a rapid growth. The second year remove them to rows three feet wide, and plant one foot apart till they grow seven to nine feet high, when they are ready for sale or final orchard planting.

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### NEW VEGETABLES.

TO J. S. SKINNER, ESQ., *Editor of "The Plough, the Loom, and the Anvil."*

MY DEAR SIR—Doctor J. J. Von Tschudi, in his travels in Peru, mentions that "there are four kinds of tuberous plants successfully cultivated in the Sierra, viz., the potato, the ulluco, the oca and the mashua. Of potatoes, there are *several varieties, and all growing in perfection*. The ulluco (*tropæolum tuberosum*) is smaller than the potato, and is very various in its form, being either round, oblong, straight, or curved. The skin is thin, of a reddish-yellow colour, and the inside is green. When simply boiled in water, it is insipid, but is very savory when cooked as a *picante*. The oca (*oxalis tuberosa*) is an oval-shaped root; the skin pale red, and the inside white. It is watery, and has a sweetish taste; for which reason it is much liked by the Peruvians. The mashua is the root of a plant, as yet unknown to botanists. It is cultivated and cooked in the same manner as those already described. In form, however, it differs from them all. It is of a flat pyramidal shape, and the lower end terminates in a fibrous point. It is watery and insipid to the taste, but is, nevertheless, much eaten by the Serranos. As the mashua roots will not keep, they are not transported from the places in which they are grown, and, therefore, are not known in Lima. The Indians use the mashua as a medicine; they consider it an efficacious remedy in cases of dropsy, indigestion, and dysentery. He also says that the quina (*chenopodium quinoa*, L.) is a pleasant and nutritious article of food. The leaves, before it attains full maturity, are eaten like spinach; but it is the seed which are most generally used as food. They are prepared in a variety of ways, but most frequently boiled in milk or in broth, and sometimes cooked with cheese and Spanish pepper. Experiments in the cultivation of *this* plant have been tried in some parts of Germany with considerable success. It were wished that its general cultivation could be introduced throughout Europe (and why not in the United States), for during the prevalence of the potato rot this plant would be found of great utility."

My reason for troubling you with the above extract is, that I thought it probable that you might recommend one or all of them to be tried in this country. If, as I have long thought, one cause of the decline of our potato is that it has depreciated by constantly using the same seed, it might be as well to introduce anew one of the varieties above mentioned, from its native soil and climate. And by trying the other plants mentioned by this learned author, who knows whether a great acquisition might not be made to our present stock of culinary vegetables.

I am truly yours,  
P. A. BROWNE.

*Note by the Editor.*—The last, Quinoa, ought undoubtedly to have a fair trial. We know a gentleman in New York, Mr. T., from Connecticut, who had resided some years in Peru. He spoke of it highly, used it at his table in New York, and promised to afford us an opportunity to taste it, but, *forgot it!* The most promising antidote or preventive of the potato rot, that we have seen mentioned, is the *peat charcoal*, for which see this number and more in our next.

EXHIBITION OF THE INDUSTRY OF ALL NATIONS IN  
ENGLAND.

A FRENCH paper, *La Presse*, speaks of some marvellous wheat, obtained by the Messrs. Dessau, by steeping the seed corn in some new preparation, which wheat is destined for exhibition in Hyde Park, at the great Fair.

The magnificence of this wheat, both in straw and ear, is represented as having excited universal admiration, and "it is expected to do the greatest honour to French agriculture."

It may not be generally known, says the *London Agricultural Gazette*, that medals are offered at the exhibition of next year for the best sacks of wheat, barley, oats, rye, beans, and peas respectively. Any one who wishes to compete must send a notice of his intention to the nearest local committee connected with the exhibition, during the course of next month, which is the latest period of entry; and from the same source he may obtain instructions for the further steps necessary to be taken. Foreigners will, no doubt, compete for these prizes, and our farmers, we imagine, would not like to hold back. The characters as to weight, quality, and uniformity of sample will determine the merit of the different parcels exhibited, and certainly there are, in this country, varieties good enough which have been harvested well enough to furnish specimens qualified for a good place in what *may* be made, and no doubt *will* be made, by foreigners, if not by ourselves, a very interesting section of the exhibition.

We should be glad to learn that some wheat of Mr. COADS, of St. Mary's county, Md., is to be exhibited, for we think it would "do honour" to *American* agriculture.

Some of it has been sent to the patent office, whence the original seed was distributed some years since.

We have had the pleasure to send a few grains to an old friend in Maryland, who well knows what to do with it when he puts his hand on a good article.

Some has been sent, too, to Mr. Colt, of Paterson, New Jersey, where it will be sure of being well attended to. We doubt not that before this goes to press, there will have been a full display of wheat and of other things at the Maryland Cattle Show. We shall be disappointed if that fair does not compare well with any in the Union, but the necessity of going to press in the meantime, makes it impossible for us to give even the general account, which the character of this paper will alone admit of.

In the many pages devoted in this number to Eastern Cattle Shows, it is only pretended to give a running sketch of matters and things in general, as they appeared on a cursory view, and because we think it useful to present to the view of readers in one section, how they "carry on the war" in other parts of the country.

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FLANNEL CAKES.—Put a tablespoonful of butter into a quart of milk, and warm them together till the butter has melted; then stir it well, and set it away to cool. Beat five eggs as light as possible, and stir them into the milk in turn with three pints of sifted flour; add a small teaspoonful of salt, and a large tablespoonful and a half of the best fresh yeast. Set the pan of batter near the fire to rise; and if the yeast is good, it will be light in three hours. Then bake it on a griddle in the manner of buckwheat cakes. Send them to table hot, and cut across into four pieces. This batter may be baked in waffle irons. If so, send to table with the cakes powdered with white sugar and cinnamon.

## FROM ST. VINCENT.

KINGSTOWN, ST. VINCENT, July 16, 1850.

THE ship Catharine Elizabeth, from London, arrived here on the 10th instant, having a patented machine on board for extracting or squeezing juice from sugar-cane. The machine is a square iron box, containing rollers which are put in motion by steam. Heretofore the most approved machines have not produced more than 55 per cent. of juice, whereas the cane contains 90, evidently leaving the greatest room for improvement.

On the 14th instant, in the presence of the Lieutenant-Governor and a strong muster of planters and scientific gentlemen, the necessary preparations having been made, the engine was set to work, and the first experiment resulted in completely abstracting the juice from 100 pounds of sugar-cane in sixty-three seconds, which was not an exhibition of the uttermost power of the engine, inasmuch as the fourth tube being out of order, consequently only three fourths of the actual power was exhibited. A second experiment was made on canes cut four months, of which much of their juice had evaporated—nevertheless sixty-five and a half pounds of juice were extracted from 100 pounds of cane in forty-four seconds. The third experiment was made on 100 pounds of cane cut only one month, and in thirty-six seconds seventy-eight and a half pounds of juice were obtained, which is an improvement unexampled in magnitude, importance and utility. Besides this, it was distinctly shown that while the new mode of pressure extracted so completely the juice of the interior of the cane, its knobs and rind were left completely untouched, which is an important advantage, as it is there that the green wax and other objectionable matter is contained, and it is there that the old roller machine unfortunately pressed—a difficulty insurmountable in the roller system, yet effectually obviated by this new process. This engine is the greatest ever discovered, and will increase, if applied, the sugar crop of the world fully one-third.—*New York Express*.

## THE RECIPROCITY WITH CANADA.

A *Toronto* paper estimates the surplus wheat crop of Canada this season at 7,000,000 more than that of last year, which was 4,000,000, making 11,000,000 for export.

The object of the reciprocity bill is to admit this wheat *duty free*, in order that our own wheat may be cheapened. Land in Canada sells for *one dollar*, that would be worth within the Union *five dollars*. The object of the reciprocity bill is to admit the products of this land *duty free*, in order that our land may be cheapened.

A year or eighteen months since, un-*“common sense”* in the *Union* charged us with desiring to limit the intercourse with Great Britain, in order that the manufacturers might be enabled to obtain cheap food at the expense of the farmers. The opponents of protection—those who call themselves free traders—now desire to admit Canadian produce *duty free*, that food may be cheaper, while the friends of protection oppose the reciprocity bill on the ground that it would ruin our own farmers, who would have to buy their iron where they sold their food, and buy their cloth where they sold their wool, whereas the Canadian would sell his food and his wool in our *protected* market, and buy their iron and their cloth where they pleased. Are our farmers prepared to grant to the Canadians the enjoyment of *all the rights* of a citizen, while *exempting him from the performance of a single duty*? If not, it is time for them to look to the movements of Congress in regard to this measure.

## PROSPECTS OF THE PLANTER.

THE latest accounts from England represent that market as without animation for yarns, and that no stocks are pressed upon it. Piece goods are dull, with unremunerative prices, and stocks on the increase. There has, in the last month, been a decline equal to about  $2\frac{1}{2}$  per cent. on yarns, and 5 per cent. on goods from the highest point; and there does not appear reason to expect any improvement in the demand, as to lead to an advance in this market, unless some fresh disaster attend the new crop of cotton.

The only *hope* is in the continuance of short crops, produced by frosts, freshets, and other circumstances that would, under a natural system of free-trade, be almost a cause of *despair*. It is really time that the planter should open his eyes to the ruinous character of the trade he is compelled to maintain. Let him look for the true and only remedy to the fact that the latest Liverpool circulars state that the only market from which there is “good demand” is the *highly protected* Germany, while at home, in England, “there is little doing for home consumption,” and yet that he is closing our own markets for the purpose of securing the power to clothe the labourers of Ireland and England, who have so little to give in exchange for food that they have almost nothing to spare for clothing.



## THE WASTE MANURES OF WASHINGTON CITY.

THERE is no place within our knowledge where so much of the elements of agricultural productions is thrown away, which might be so easily availed of, as in Washington, D. C., where so many hundreds are congregated in a few buildings.

What a speculation for some man of a little enterprise, who would devise the means of saving it.

WASTE OF MANURE.—While you are descanting upon the value of urea as manure, and deploring the waste of it, from want of arrangement for procuring it from the drainage of cities and towns, I suggest an appeal to the Agricultural Society, to turn their attention to this important subject, by such mode as may appear to them best suited—perhaps by the offer of premiums for the best plans. The moment is favourable, as it may be well combined with whatever measures may be recommended by the Health of Town Committees. If some spirited individual or local association would show the way in some country town, the principle would soon extend itself. I apprehend there cannot be a doubt that in the present demand for manures, some well-digested plan would yield a satisfactory profit upon the outlay. A scheme was formerly proposed of carrying all the drainage of London to excavations at the Isle of Dogs, and I doubt not that the demand for it as manure would afford an ample profit.

EXTRACTS FROM THE AMERICAN FARMER FOR DECEMBER, 1849.—“We had an opportunity of examining the five yearling ewes just imported by Col. J. W. Ware, near Berryville, Clarke county, Virginia, whilst passing through this city (Baltimore) to his residence, and have no hesitation in expressing the opinion that finer ewe sheep of their age were never seen in any country. The first prize of £20 sterling was awarded them by the Royal Agricultural Society of England, at their fair, at Norwich, July 19, 1849. We have seen the certificate testifying in due form to their identity, and were permitted to peruse the letter from the gentleman who forwarded them, which expresses the belief, ‘that they are the best five yearling ewes in the world, averaging, when sheared, at sixteen months old, the great weight of 220 pounds each.’ Col. Ware gave orders for the *best*, to take the high prize of the Royal Agricultural Society of England, and procured the whole lot. A long voyage across the Atlantic, and being cooped in too confined a vehicle, of course has somewhat soiled their fleece, but they all appear to be in fine health; and no doubt when they have had time to recruit on the fine highlands of Clarke county, if they safely pass through the ensuing winter, they will make such a show, in the pens at our next fair, as will astonish the natives. The public gratitude is due to Col. Ware for his liberality in thus securing to our country such valuable breeders.

“Col. Ware recently sold, on the farm, a lot of fifty muttons, of his improved Cotswolds and crosses, to go to New York, as follows: five at \$35 each, \$175; five at \$25 each, \$125; forty at \$10 each, \$400; making \$700 for the lot of fifty, and averaging \$14 each. Higher prices were offered for the top alone, but Col. Ware refused to separate them. The forty were of different grades of the Cotswolds, but the last of these not being so good, reduced the price of the whole lot.”

## LITERARY NOTICE.

MASSACHUSETTS STATE RECORD.—An annual of some 250 to 300 pages is very handsomely gotten up, and published, in Boston, by James French, Esq., 78 Washington Street—the like whereof we should be glad to see published in every State in the Union. The country is entirely too large to think of such a work for the Union, without having recourse to facts gathered, in the first instance, within State limits, if not by State authority; and it is really difficult to see how enlightened legislation can be carried on without the aid of such very useful compilations as the one before us, which is not only “designed” but well fitted to serve as a book of reference, of facts and explanations, in respect to matters, useful and interesting, which may exist or transpire within the limits of the commonwealth of Massachusetts. We commend it to the notice of all who wish to be familiar with the growth of a community, that is increasing beyond example, in all the elements of physical and moral power.



THE letters from Mr. CAREY to the Secretary of the Treasury—illustrating, as we believe, beyond all dispute, the perfect “HARMONY OF INTERESTS” between all our great branches of industry—*Agricultural, Manufacturing, and Commercial*—will be brought to a close in the next number of “The Plough, the Loom, and the Anvil.”

The space which they have occupied will, thereafter, be appropriated to articles more diversified, and, in the common acceptation, more *practical*; but we sadly misapprehend both the character of our readers and our own duty, if their wishes, as well as their interests, have not been best consulted, in thus enabling them to see, once and for all, how deeply and peculiarly *the cultivators of the soil*—the producers of the materials of manufacture and commerce—are concerned in the *legislative policy of the country*; and in understanding how harmoniously every great interest advances in the march to the highest degree of improvement, when that policy has a tendency to insure good reward at home to the labour employed in *every industrial pursuit for which our country possesses the natural resources*! Can any one point us to a subject more immediately connected with the practical welfare of the agriculturist? or one which, consequently, it more behoves an agricultural editor to elucidate, or his patrons to study? And where, or by whom, let us ask, is it likely to be discussed more impartially, or with better understanding of the subject, than in a journal which knows no party obligations, and has no party ends to be achieved? and by one who, possessing eminent qualifications, has studied it with a single eye to the dissemination of the truth and the promotion of the public interest?

For ourselves, from first to last, have we proclaimed a willingness to *hear both sides and to let both sides be heard*! Yet no one has ventured to question the accuracy of a single fact, the soundness of a single principle, or the fairness of a single argument raised in support of the principles set forth in these letters! Far, then, from deprecating the space they have occupied, may we not congratulate—we will not say the subscribers—but the *readers* of “The Plough, the Loom, and the Anvil,” on having within their reach the most thorough exposition—unanswered because unanswerable—that has yet appeared in any form, on the effect of our ever-fluctuating protective policy, on every conceivable form of industrial employment, and every public interest liable to be effected by the action of government?

The farmer or planter who would repudiate such subjects as being, either above, or beneath, or otherwise, not within the proper scope of his studies and anxieties, seems to us to stultify and degrade himself to that low level where men become, as Mr. Jefferson said, fit to be “saddled and bridled,” and ridden by demagogues, of whatever party, instead of thinking for themselves, and, that they may think wisely, praying forever, with Hector on the walls of Troy,

“Ye Gods, give us but light.”

Men are either fit for self-government or they are not. If not, let them at once yield all pretensions to it, and with it the God-like faculty of thought and reason. If not prepared for such an act of self-abasement, let them act on the consciousness that their first duty to themselves and their children is to study the bearing of public legislation on their own and the public happiness.

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#### INQUIRY BY C. H. HINES, OF FRANKLIN, TENNESSEE.

P. S.—WILL Mr. Skinner have the kindness to inform where some seed of the “chocolate corn” can be procured. I am desirous to plant the ensuing season. I have concluded it to be the same called “bruma” by those recommending it as an antidote for cholera.

Many years ago, I raised it in N. C., but have lost seed and can procure none.

C. H. H.

The seedmen of Philadelphia have various kinds of corn, but none that they know by that name.—*Ed. P. L. & A.*

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#### CARBON, OR CHARCOAL, IN THE AIR.

A SCIENTIFIC estimate of the quantity of carbon or charcoal given out to the air by the breathing of all the animals in Great Britain, including men, is not less than 2,000,000 of tons.



## READINGS FOR MOTHERS AND CHILDREN.

### A LESSON FOR PARENTS IN LAW.

THE moral to be drawn from the following is the hint it gives to that most unamiable of all personages, the Parent in Law, who can find it in his or her heart to be neglectful and unkind to children, who have innocently and without any agency of their own been placed under their care.

THE ROBIN.—As the robin appears to be a great favourite, perhaps the following fact may not be altogether uninteresting. Under my window a robin, in the spring, thought proper to build its nest, and there to securely perform the office of incubation; but in the mean time that "beauteous stranger of the grove"—that "messenger of spring"—clandestinely conveyed an egg to this abode of peace. The exact circumstances which attended the deposition of the egg by the cuckoo I cannot relate, and it is, I believe, a subject of controversy among naturalists, as to the identical mode it adopts for the completion of its purpose. Certain it is, however, that the egg was deposited, and that the depositor was a cuckoo. I never remember having seen a larger bird than the robin near the window, and I certainly did not hear the well-known cry. I recollect having once imagined that I heard the cry in the night, and remembering that beautiful passage in the "Pleasures of Hope"—

"And when the sun's last splendour lights the deep,  
The woods, and waves, and murmuring winds asleep;  
When fairy harps th' Hesperian planet hail,  
And the lone Cuckoo sighs along the vale;"

I thought it was very possible that I was not deceived. It seems certain that, in many instances, the cuckoo does dislodge and destroy, or take away the eggs which she finds in the nest where she deposits her own; but it is not so clear that she eats them, notwithstanding the common supposition that she does in this country, as appears from the popular nursery rhyme—

"The Cuckoo's a fine bird,  
He sings as he flies;  
He brings us good tidings,  
He tells us no lies.  
He sucks little birds' eggs  
To make his voice clear;  
And when he sings 'Cuckoo,'  
The summer is near."

I found that in my case the eggs were held sacred, but that the hatching of the young cuckoo was fatal to the legitimate brood of the foster-mother, as the young cuckoo had very unceremoniously ejected them from the nest; a feat which I should imagine was readily performed on account

of his superior size and strength; and so far from resenting this conduct, the mother directed her whole attention to her merciless foster-child, and showed, in the care she took of him and the zeal with which she fed him, all the regard which she could have displayed towards her own offspring. The cuckoo, when strong enough to fly easily, would not assist by picking in the least degree, but would perch upon a neighbouring branch, and await with open mouth the expected morsel. The assiduity shown by the foster-mother in attending to all the wants of the usurper of its nest was truly astonishing; the disparity of size in the two birds rendered this display of maternal affection ludicrous, particularly as the robin followed its gigantic foster-child from tree to tree to administer to its wants. M. Vaillant, the African traveller, tells us that the cuckoo in Africa always selects as a cradle for its progeny the nests of birds which feed in the same way, never those of birds which feed on grain, as knowing, by an unerring instinct, that the former were best adapted for supplying the young with proper food, inasmuch as the cuckoo almost exclusively feeds on insects and larvæ; but there is reason to suppose that the bird is not so nice in its selection in England; and even should it select a granivorous foster-mother, that bird will change its habits and assimilate them to those of the young cuckoo.

Quere—Does not this look very much like the exercise of a reasoning faculty?—  
*Edit. P. L. & A.*

### MANAGEMENT OF PIGEONS.

It is often found difficult to get pigeons reconciled to a new home. They have an enlarged bump of locality, or some additional sense or instinct, of which we know nothing, that enables them, carry them where or how you will, to strike a "bee line" for home.

Some recommend plucking a few feathers from the wing, that prevents their flying, but to this a writer urges a reasonable objection, and says:—

"When I was a pigeon-fancier, I had what I consider a much better plan than plucking out the wing-feathers, recommended by one of your correspondents. I had found that my newly-bought pigeons were apt to fly away when they were liberated; and, in the first instance, I plucked their wings, as recommended by your correspondent; but I found these primary quill-feathers were a long time in

growing again, and the pigeons were in danger of being caught by the cats, &c. I therefore tied five or six of the quill feathers with a waxed thread, as being less liable to slip than common thread; and I found a fortnight's tying was quite long enough to get the birds acquainted with the place, as they never flew away when this plan was adopted."

The love of pigeons for their native home seems to supersede that natural affection which most animals show for their young. Pigeons which have for three or four years bred in a confined place, have, on being released, forsaken their young, although requiring all their care, and returned to their original haunts. A pigeon, which had been confined and made to pair with another, on being released, forsook him and her two young ones, eight days old, in order to return to a former partner. Although flying about in the neighbourhood, she never again came near them.

We once witnessed the case of a pigeon being struck and killed by a hawk. Its mate was so affected with fright, or with grief, that it never was seen to eat afterwards, and literally pined to death, seeming to be broken-hearted. This happened at Mount Hope, on Herring Bay.

Persons who breed Canary birds have many opportunities of watching their peculiar dispositions, and there appears to be as great a variety in their tempers as amongst human beings. The mate of a Canary bird which was sitting on her eggs was sometimes more intent on serenading than feeding her. When this was the case, she would quit her nest and chase him round and round the cage, pecking him violently with her beak, and showing her anger in a variety of ways. She would then return to her nest without attempting to feed herself, and the male would immediately, like a meek, obedient husband, attend to her wants, carrying her a plentiful supply of seed, groundsel, and egg. He then resumed his song, and she repeated her discipline whenever his notes were too much prolonged.

Would it not be well if all neglectful husbands could be served in like manner? Though, be it confessed, it would not be agreeable to witness the exhibition.

MR. KNIGHT, the intelligent nurseryman in the King's Road, Chelsea, who has done so much in introducing new and beautiful plants into this country, keeps a large number of toads in his stoves, as he finds them beneficial in destroying the wood lice, which injure his plants. The heat in some of his stoves is occasionally as high as 130 degrees, and yet the toads did not appear at all affected by it. If an insect was put five or six inches from one of them, it seized it with so much rapidity

that it was difficult to perceive how it disappeared. On one occasion, a large toad ate four good-sized beetles, one after the other; he took them up in his fore feet, and when he got them endwise to his mouth, they were immediately swallowed. Toads are harmless animals, and of infinite use in a garden, consuming great numbers of slugs and destructive insects. They are certainly capable of attachment—indeed, what animal is not?—and when they are without fear their eyes are peculiarly soft and mild in their expression. They are, however, a loathed and persecuted species. Shakspeare characterizes them as 'ugly and venomous,' while Milton, as if to increase the odium against them, assimilates one of the species to the arch enemy of mankind.

I should be very glad to rescue these poor, unoffending animals from the cruelty which is so commonly practiced upon them. It is impossible to walk through a village without seeing several mummies of toads, sprawling with extended feet, having been beat flat by stones thrown at them by mischievous boys. Gardeners either cut them in two with their spades, or else destroy them in some other way; while every one seems to enjoy the misery which is inflicted on this unfortunate reptile. In short, they are surrounded by enemies, and the whole race would probably become extinct if they left their retreats in the day-time. Were people only to bear in mind that animals were created, not out of caprice, but to be useful to man, they would refrain from wantonly destroying them. Alas! how prone is man, shall we say above all animated creation, to inflict pain and to destroy life, unnecessarily! Were we not told that he is made after the image of his Maker, should we not think it was after the image of — a very different being?

#### PLAIN DIRECTIONS FOR MAKING GOOD BUTTER, AS PRACTICED IN PENNSYLVANIA.

To say nothing of the importance of the subject itself, the signature to what follows would be sufficient to attract for the article the careful attention of every housekeeper, and especially of every butter-maker. Between good butter, and butter that is simply not good, there is as much difference as between genuine and counterfeit money; between an easy, well-bred man, from nature and associations; and the vulgar millionaire, who, because he can buy anything else, thinks he can buy good breeding; but do what he will, the ears will stick out.

Do we assume too much in saying, that the friends who are kindly doing what they can to extend the circulation of this journal, might safely refer to two communications in this number, as being in themselves worth the subscription for a year? We mean the one on the *cultivation of onions*, by Judge Proctor, and this, from Miss Leslie, on *making of butter*. On neither could there be better authority; and then, how well these two things—butter and onions—sometimes go together, either to “smother” the “dry meat” of a rabbit, or, as sauce for fat tripe, thoroughly well cleaned and well boiled!

Some good butter-makers in Pennsylvania prefer a *cool, well-ventilated*, dry cellar, to a spring-house, for a dairy. The danger is, in such case, that instead of keeping the cellar strictly and exclusively for that use, they will make a convenience of it for other things; for keeping vegetables, cold meat, &c., the least odour of which will affect the butter.

Others again maintain, that in the process of cleaning the butter of milk, there can be no harm in the use of *very pure and cold water*; nor would there seem to be any harm in resorting to that obvious expedient for accelerating that process, were it not for the danger of the indolence, or want of attention of the dairy woman, in completely working the water out again, to the very last drop; for, as here recommended, the complete expulsion of the last drop of milk is indispensable in the preparation of sweet butter, unless it be butter to be taken directly from the churn to the table, and there consumed at once.

This communication, with which we have been kindly favoured by Miss Leslie, supplies a *desideratum* we have been long wanting (*i. e.*), the process followed in the neighbourhood of Philadelphia, where, say what they may, is to be found the best butter in the United States.

About Baltimore, they seem to understand the method, as well as anywhere, so far as depends on dairy operations; but after all, it is not to be denied that there is a richness, and a pure, fresh high flavour, in the butter from the best dairies around Philadelphia, not elsewhere to be met with.

Finally, it may be well to refer the reader to an article in our July number, where it is stated that although the cream may be left to get sour before churning, it should always be taken from the milk *before the milk sours*.

#### DIRECTIONS FOR MAKING BUTTER.

WASH your milk-pans carefully every morning and every evening; and after each washing, scald them with boiling water, and let the water stand in them till it gets cold, then pour it out, and wipe the pans dry with a clean cloth. Let them stand all day in the hot sun; fill them all with cold water about half an hour, or more before milking time, and do not pour it off till you are ready to use the pans.

The best of all milk-pans are those of thick glass, and the next best are of white ware. Common brown earthenware is too porous, though it is very generally used. All milk-pans should be broad and shallow, that the cream may have more surface for rising to the top. Unless all the utensils are kept perfectly clean, sweet and every way nice, the butter will never be good.

When you have strained the milk into the pans, place them in the spring-house, sitting them down in the water. After the milk has stood twelve hours, skim off all the cream and deposit it in a large deep jar, or crock, which must be kept closely covered, and stirred up with a smooth round stick, at least twice a-day, and whenever you add fresh cream to it. This stirring is to prevent the butter from being injured by the skim that will gather over the surface of the cream. The cream must be sour before it is churned; but if it is bitter, or has any bad rancid taste, throw it away, as butter made from it will be unfit to eat. Always add to the cream-crock the stripping of the milk.

You should churn at least twice a-week; for, if allowed to stand too long, the cream and butter will most certainly be bad.

Have your churn very clean; scald it always before you use it; and then rinse and cool it with cold water. A barrel churn is best; but if you have only one or two cows a common upright churn, worked by a dash or staff, will do very well.

Strain the cream from the crock into the churn, and put on the lid closely. In warm weather, move the dash rather slowly up and down, as churning too fast will render the butter soft. When you find that the dash moves hurriedly and with difficulty, you may know that the butter has come; that is, it has separated from the thin fluid, and gathered into a lump, which has lodged round the bottom of the dash or staff. It is then unnecessary to



churn any longer. In cold weather, the butter is much more tardy in coming than in warm weather. To hasten it, place the churn near the fire, and keep it there all the time you are churning. You may also in winter accelerate it by taking off the lid of the churn for a moment, and pouring in a little boiling water. Winter butter will be whiter and less rich than that of spring, summer and autumn; but, nevertheless, it will, if the cows are well fed and everything properly managed, be perfectly sweet and good, and far superior for all purposes, and infinitely more wholesome than salt butter put up in firkins.

Philadelphia markets are well supplied all winter with plenty of nice fresh butter made into pounds, and printed. In that city, salt butter is never found on any genteel table, at any season.

When the cream has been sufficiently churned, and the butter all collected in the centre, take it out with a short-handled shallow wooden ladle, and put it into a clean wooden dish or pail, or a small tub. Squeeze and press it hard with the ladle, to get out all the milk that remains in it, which if left in will now cause the butter to spoil. Add a very little salt, and then squeeze and work it for a long time. Set it away in a cool place, for three hours, and then work it over again, squeezing and pressing it as hard as you can. A table with a marble top will be found of great advantage in working and making up butter. Weigh it and make it up into separate pounds, smoothing and shaping each pound handsomely, and stamping the top of each with a wooden butter print, dipped every time in a basin of cold water. Spread a clean linen cloth on a bench in the spring-house. Place the butter upon it, to stand till it becomes perfectly firm and hard. Then wrap each pound in a separate piece of clean linen, that has been dipped in cold water.

Pour the buttermilk into a clean crock, and set it in the spring-house, with a saucer for dipping it out, and keep the crock covered. The buttermilk will be excellent the first day; but on the second it will become too thick and sour, and should be given to pigs or poultry. Winter buttermilk is seldom very palatable.

Before you put away the churn, wash and scald it well, and the day that you use it again, keep it for an hour or two filled with cold water previous to putting in the cream.

This receipt for making butter is according to the method generally pursued at some of the best farm-houses in Pennsylvania; and if exactly followed, will be found very good. If the cows are well-fed, the badness of the butter will be caused only by mismanagement, such as want of cleanliness, keeping the cream too long before churning; neglecting to work

all the milk out of the butter, when made; or to the too common practice of salting it so profusely as to render it unpleasant to the taste, and unfit for cakes or pastry. All these causes of bad butter are inexcusable, and can easily be avoided. Unless the cows have been allowed to feed where there are bitter weeds or garlic, the milk cannot naturally have any disagreeable taste. Of course, it is richer when the pasture is fine and luxuriant.

MISS LESLIE.

### CREAM CHEESE.

THE cheese so called (of which numbers are brought to the Philadelphia market during the summer,) is not made entirely of cream, but of milk warm from the cow (and therefore unskimmed), mixed with cream of the preceding evening. To a small tub of fresh new morning's milk, add the cream skimmed from an equal quantity of last night's milk. Mix the cream and new milk together; set them over the fire, and warm them to about blood-heat or 100° of the thermometer. Have ready a small cup of water, in which has been working all night a piece of rennet (the salt previously wiped off) of about four inches square. Stir the rennet-water into the vessel of mixed milk and cream (which you must first empty into a large pan or small tub), and set it in a warm place till the curd has completely formed, and the whey looks clear and greenish; then with a knife cut the curd into squares. Next, take a large thin straining-cloth, and press it down on the curd, so as to make the whey rise up through it. As the whey rises, dip it off with a saucer or skimming dish. When the whey is all out, put the curd into the cloth, and squeeze and press it with your hands till it becomes as dry as possible. Next, crumble the curd very fine with your hands, and salt it slightly. Then wash the straining-cloth very clean, and lay it in your cheese-hoop (a bottomless vessel about the size of a dinner plate and perforated with small gimlet holes) put the crumbled curd into the cloth, and then fold the rest of the cloth closely over it. The cheese-hoop should be set on a clean wooden bench or table. Place upon it its round cover, so as to fit exactly; and lay on the top two bricks or a heavy stone. After it has stood six hours in the hoop or mould, turn the cheese, and let it stand six hours longer.

When you take out the cheese, rub it all over with a little fresh butter. Set it in a cool, dark, dry place (turning it every day) and in four or five days it will be fit for use. When once cut, it should be eaten immediately; but while it is uncut, it will keep several days in a cold place, turning it daily.

MISS LESLIE.

# **THE AGRICULTURAL ADVERTISER.**

NOVEMBER, 1850.

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THE  
**AMERICAN LIVE STOCK INSURANCE COMPANY,**  
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Charter Unlimited: Granted January 2d, 1850.

**CAPITAL \$50,000!** *Stockholders Individually Liable.*

For the insurance of *HORSES, MULES, PRIZE BULLS, SHEEP, and CATTLE* of every description, against the combined risks of *FIRE, WATER, ACCIDENTS, AND DISEASE*; also upon stock driven to Eastern markets, or transported South.

 *Losses paid in 30 days after proof of death.* 

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## AGENCY FOR THE PURCHASE AND SALE OF IMPROVED STOCK.

Stock Cattle of all the different breeds, Sheep, Swine, Poultry, &c., purchased to order, and carefully shipped to any part of the United States, for which a reasonable commission will be charged.

All letters, post paid, will be promptly attended to.

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## E. WHITMAN'S AGRICULTURAL WAREHOUSE AND SEED STORE, *No. 55 Light Street,* **BALTIMORE, Md.,**

Will contain, this season, the largest stock of Improved Agricultural Implements ever offered for sale in this country, amongst which will be found

☞ 100 Whitman's Superior Wrought Iron Railway Horsepowers, which received the first premium at the last fair of the Maryland Agricultural Society.

☞ 100 Lever or Sweep Powers, among which will be found all the latest improvements.

Also Eddy's or Taplin's Horsepower, which is portable, simple, and durable, consisting of one wheel only.

☞ 200 Whitman's Thrashers, which received the first premium in Baltimore in 1849. The cylinder of this thrasher being all in one piece of iron, will last one hundred years in constant use. A great improvement has recently been made in the teeth or spikes, which makes it the most perfect machine now in use.

☞ 100 other Thrashers, comprising various kinds and improvements.

☞ 7000 Ploughs, consisting of every kind now in use, and a great variety of Cultivators, Cornplanters, Cornshellers, Straw Cutters, Seed Sowers, Grant's, Bamorough's and various other Wheat Fans, together with every article in the farming line.

Also, a general assortment of

## FIELD AND GARDEN SEEDS,

All of which will be sold at wholesale and retail on the most favourable terms.

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## PENNOCK'S PATENT SEED AND GRAIN PLANTER.

FOR PLANTING

*Wheat, Rye, Barley, Indian Corn, Rice, Oats, Beans, Peas, Ruta Bagas and Turnips.*

This machine can be regulated to drop any quantity per acre, at whatever depth required, and operates equally well on all kinds of land. It is so constructed as not to be injured by coming in contact with rocks, roots, &c. For simplicity, durability, and economy, it is unsurpassed by any other agricultural implement in use.

Price \$100. A liberal discount allowed to Agents.

### READ THE FOLLOWING.

Previous to harvest, we had five acres carefully measured with the chain and compass by W. Pennington, the surveyor of the neighborhood, assisted by John Jones, who saw it all cut, threshed and measured separately, with the following results:

Nos. 1 and 2.—Two acres of broadcast, surveyed together—two bushels of seed to the acre—seventy-five shocks—fifty five bushels of wheat, or  $27\frac{1}{2}$  bushels to the acre.

No. 3.—One acre drilled, adjoining the above, the land, if any different, rather inferior; treated exactly alike—one bushel and one peck of seed to the acre—forty-two shocks, thirty-five bushels.

No. 4.—One acre drilled a little distance from No. 3, one bushel and one peck of seed, forty-two shocks, thirty-five bushels.

No. 5.—One acre drilled a little distance from No. 4, one bushel and one peck of seed, fifty shocks, forty bushels to the acre.

Here we see that by the use of the drill alone (the soil being in the same, or perhaps an inferior condition), the crop was increased seven and a half bushels per acre, and adding the amount saved (three pecks), make eight bushels and one peck to the acre; and further, that the amount of straw to the drilled acre, with a smaller quantity of seed sown, increased twelve per cent., and the amount of grain on the same acre was increased more than twenty-seven per cent. \* \* \* \* \* The drill used was invented by M. PENNOCK & SONS, of Kennet Square, Chester County, Pennsylvania.

Philadelphia, 10th Mo., 1844.

Respectfully,

CHARLES NOBLE.

Unionville, Chester Co., Pa., Feb. 8th, 1848.

I do hereby certify that I have used one of Pennock's Patent Drills for five years, and have put in from fifty to seventy acres of wheat for myself every year since, and have never failed having a good crop. I think I can safely say that I have realized from 30 to 50 per cent., or that it has averaged me from \$300 to \$400, and even \$500 a year over the usual broadcast seeding. My land being low, I have lost greatly by the winter throwing the roots entirely out, which is wholly obviated by drilling. I would not take \$500 for my Drill if I could not get another of the kind.

JOHN HUEY.

Reedville, Mifflin Co., Pa., July 21st, 1848.

I hereby certify that, previous to harvesting, I measured one acre of wheat carefully, as follows: half an acre which had been drilled in with one of your machines, one and a quarter bushels of seed per acre—also half an acre broadcast, from one and three quarters to two bushels of seed per acre, and when cut and threshed, measured as follows:—the half acre drilled wheat thirteen shocks, measured twelve bushels and two quarts. The half acre broadcast eight shocks, measured seven bushels, eighteen quarts. The quality of the land exactly alike, and treated alike previous to sowing the seed. ABNER THOMPSON.

We, the undersigned, were present, saw the land measured, cut the grain, and assisted in threshing the same, and believe the above statement to be correct.

JAS. REED,

ALEXANDER REED,

H. G. MORRISON,

WILLIAM STEELY,

D. C. MILLER,

GEORGE ASHBY.

The subscribers manufacture, and keep constantly on hand, the above machine, together with a general assortment of agricultural implements, such as Ploughs, Horse Powers, and Threshers, Hussey's Reapers, Horse Rakes, Corn Shellers, Fanning mills, &c. Also, Pennock's improved Lever Jack, for raising carriages and wagons; together with steam engines and mill work of every description.

Having an Iron Foundry in successful operation, they are prepared to furnish castings of superior quality at short notice.

S. & M. PENNOCK.

Kennet Square, Chester Co., Pa.

Shirly, Va., Nov. 5th, 1849.

MESSRS. S. & M. PENNOCK. \* \* \* \* \* I have used your Patent Seed Drill, and do consider it the most simple and perfect, as well as most complete labour-saving machine I ever saw. It does the work in our lower James River county, of 14 harrows, 12 horses, and 5 good men—(one of them a good seedsman,) with only 3 harrows and 2 smart boys. I am determined to have two of your Drills by next season if possible. \* \* \* \*

Most respectfully, yours, &c.,

HILL CARTER

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